

BUSINESS WEEK

JUNE 25, 1949



James D. Wise: Bigelow-Sanford's lawyer-president squares away for a buyers' market (page 6)

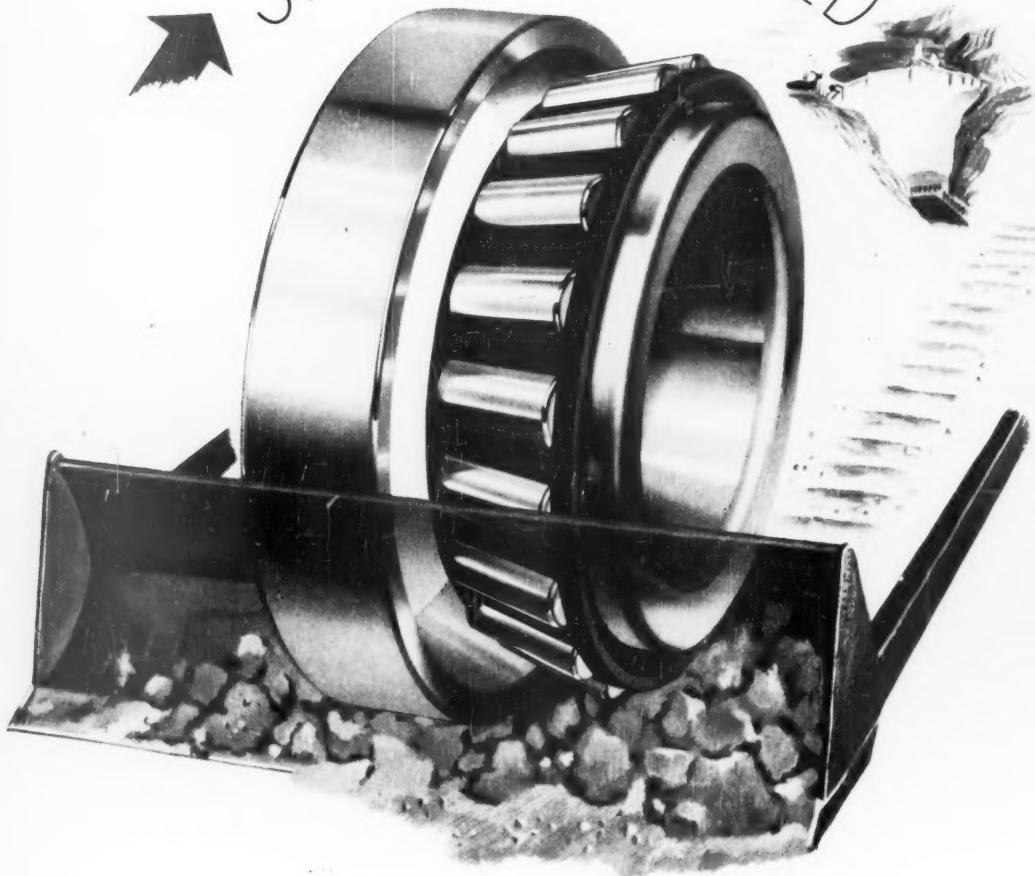
BUSINESS
WEEK
INDEX

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the molecular structure of wool, cotton and synthetics to develop even better yarns at lower cost.

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The dollars devoted to research and development by the textile industry join the stream of other dollars spent by our

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This is the open secret of America's success—the fact that people gain more for themselves by providing more for others.

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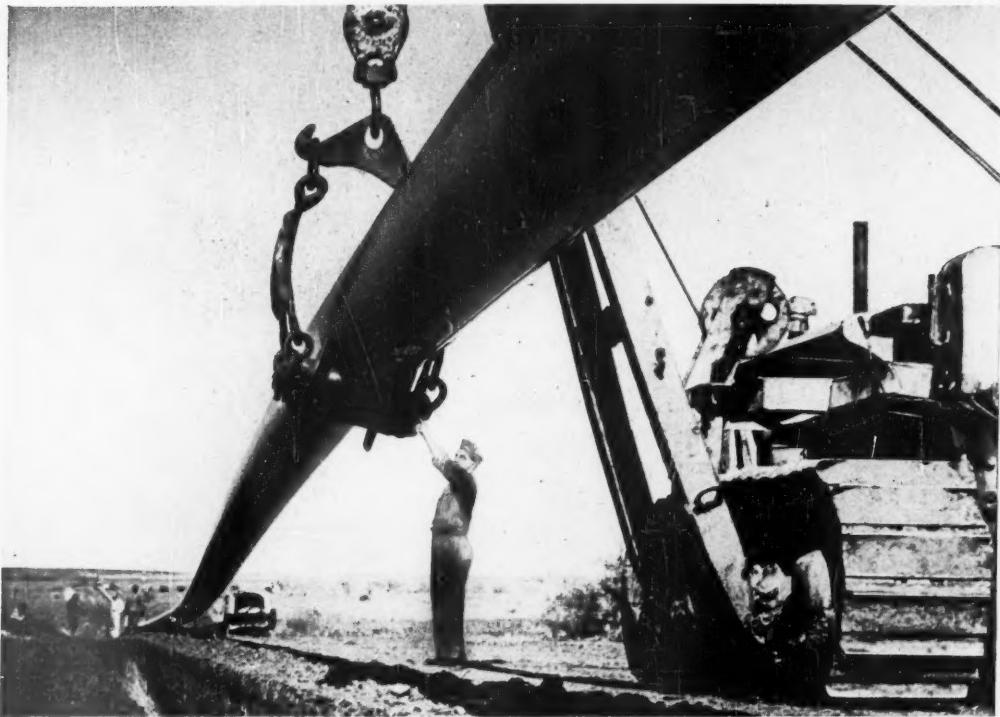
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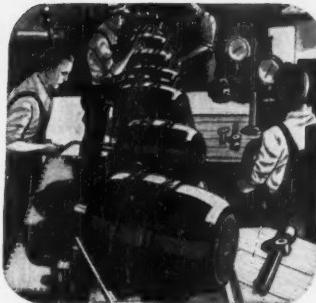


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1 1897—America's first cars, hand-built and expensive, looked like this. Big questions of the day were—will it run? can I ever afford to buy one? Little thought was given to washing a car.



2 1915—Howell "Red Band" Motors arrived. The electrical horsepower age was already under way. Automobiles, as well as other goods and services, were soon to be better, cheaper.



3 1935—This combination brush and spray was one of many early car-washing devices. It wasn't until 1945 that modern assembly line methods began to be applied to the washing of cars.

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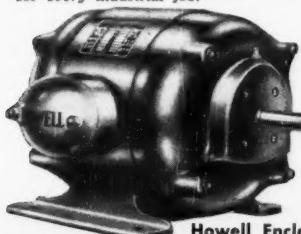
4 Today—Automatic car washers, like this, equipped with nine totally enclosed Howell Motors, turn out a glistening, clean car in a jiffy! Back-breaking labor is gone, valuable time is saved—all so that more people can enjoy better living at less cost.

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Howell totally enclosed motor built for operation in high humidity atmosphere. Remember, there's a Howell Motor for every industrial job.



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Bigger Value Every Day

It's a good thing we don't have to make your telephone instrument bigger every time we make it possible for you to call more people. You'd have to move out of the house to make room for the telephone.

THE big increase in the number of Bell telephones — 10,500,000 have been added since the end of the war — is just one reason for the increased value of the telephone. There's been an increase in quality as well as quantity.

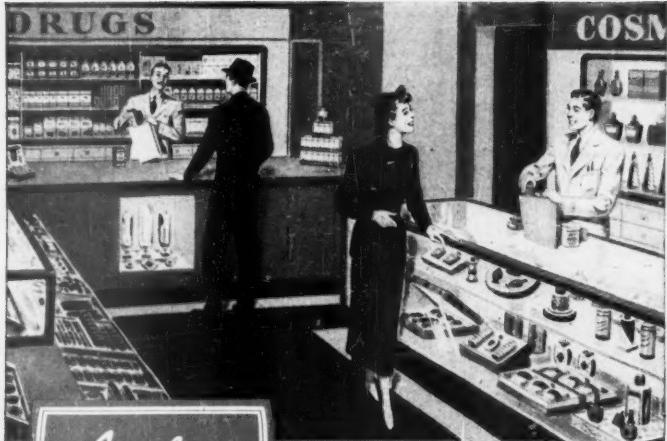
Service is more valuable because calls go through faster, more accurately. Often they go farther, too. Millions of calls a day now travel greater distances at the local rate.

There never has been a time when the telephone has been of greater value to you than right now.

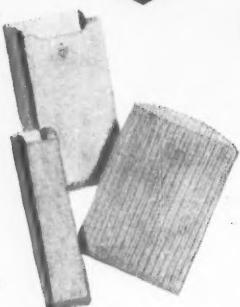
And the cost is still low. Increases in telephone rates are much less than the increases in most other things you buy. They average only a penny or so per call.

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KRAFT PAPER AND
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FOLDING CARTONS

Everyone is in a hurry! The demand for faster service is a part of the increased tempo of American business.

That's why more and more businesses are turning to Gaylord Bags—drug stores, department stores, specialty shops, dry cleaners, laundries, grocery stores, liquor stores, super markets—in fact, every type of retail and service business.

The uniform size, full weight and extra strength of Gaylord Kraft Bags are vital factors in holding satisfied customers.

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6

THE DEPARTMENTS

Aviation	36
Business Abroad	109
Business Outlook	9
Executive Opinion	40
Finance	89
International Outlook	107
Labor	96
Marketing	78
The Markets	94
New Products	72
Production	60
Readers Report	38
Regions	31
Report to Executives	47
Taxes	56
The Trend	116
Washington Outlook	15

THE COVER

James DeCamp Wise never expected to be a corporation president—a natural assumption in a man whose mature life was concerned mostly with torts, replevins, and habeas corpus.

• **Backed In**—Fact is, Wise backed into the rug business. He was senior partner in a New York law firm now known as Cahill, Gordon, Zachry & Reindel and through that became general counsel and a director of Bigelow-Sanford Carpet Co., Inc.

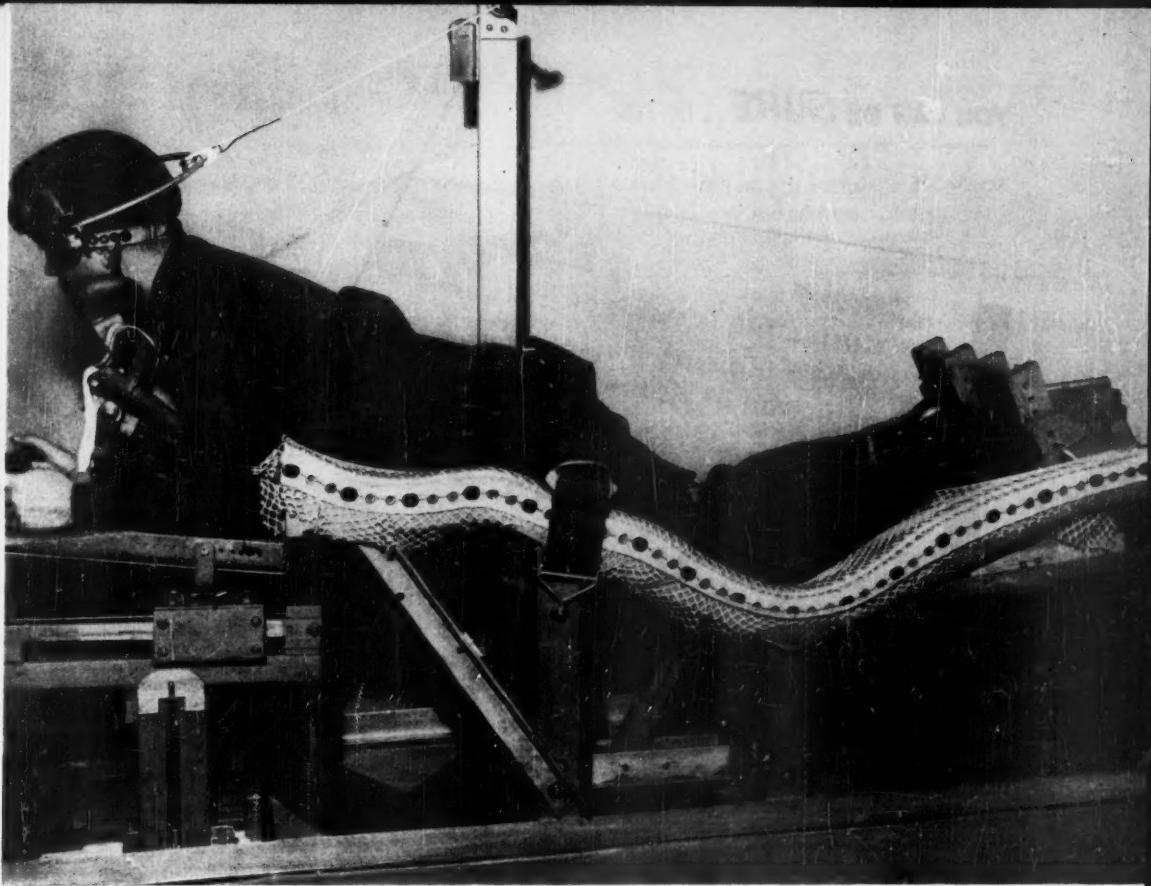
When the presidency of the company fell vacant owing to John A. Sweetser's death, the board of directors decided that Jim Wise was just the man for the job. In December, 1944, with few preconceived notions of how to run a carpet company, Wise took over.

• **Hoosier**—Vigorous, chubby James Wise was born a Hoosier 50 years ago, but didn't stay one long. When he was very young, his family moved to Los Angeles. Wise attended Stanford University for three years, then he took a bachelor's degree at Columbia University, followed it in 1925 with a degree from the Columbia Law School and a job with a Wall Street law firm.

Wise's tie with Columbia is still a close one. Currently much of his time is taken up by his job as president of the Columbia Assn., which has been working with Columbia's president Dwight D. Eisenhower to encourage a free flow of ideas between businessmen and the university. Wise is anxious that Columbia's scholars of management take advantage of the fact that they're "just a subway ride from big business."

• **Interests**—Wise also serves on the board of directors of the American Management Assn., and is a trustee of the National Industrial Conference Board, Inc. During the week, Wise lives in a Manhattan apartment; weekends, he relaxes on his New Jersey farm.

—Complete story on Bigelow-Sanford Carpet Co., Inc., begins on page 78.
Cover painting by Tran Mawick.



USAF Air Materiel Command Photo

NYLON HAMMOCK FOR A MAN WHO WEIGHS A TON

If you need more strength with less weight to solve a fiber or fabric problem in your business, you'll want to know more about Du Pont nylon.

Consider, for example, the thin nylon mesh upon which this airplane pilot is reclining. It weighs no more than a pound . . . yet it must support a ton weight!

This nylon mesh is part of a new "pilot bed" now being tested as a possible improvement of pilot position in fighter planes. When a pilot flies in a prone position—rather than sitting up straight—there's less likelihood of centrifugal force pulling blood from his brain, causing him to "black out" in a dive or sharp turn.

This centrifugal force also increases the pilot's weight . . . and 2,000 pounds of strain on the mesh would not be uncommon in high-speed changes of direction. In laboratory tests, the nylon mesh has supported a 200-pound dummy through a "pull out" that increased its

weight 16 times!

Du Pont nylon fibers give this mesh its strength and light weight. They contribute to the mesh's springiness and resilience, helping to make this flying position comfortable. And nylon isn't weakened by perspiration, grease, or standard cleaning fluids.

Your problem may not be as unusual as the one described above. But nylon's strength may be just what you need. Or you may profit from the many other properties of nylon.

Get the facts on Du Pont nylon fibers. Their unusual performance properties may help you improve a production process, make a better product or a new one.

Nylon is tough and durable . . . strong yet light. It resists deterioration by mildew, soil and marine rot, petroleum oils and alkalies. It's elastic and resilient . . . can be "heat set" to hold shape.

Find out how nylon is being put to work by many industries . . . improving products and production methods. Write for 32-page booklet, "Nylon Textile Fibers in Industry." It fully describes nylon's remarkable properties and their industrial applications. And tell us your fiber or fabric problems. We'll be glad to work with you in solving them. Address Room 6510-L, Nylon Division, E. I. du Pont de Nemours & Co. (Inc.), Wilmington 98, Delaware.

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SAVING
BY ELIMINATING LUBRICATION
SAVING INDICATED
BY REDUCTION OF MOTOR OUTAGES

TOTAL SAVING \$750
PER YEAR PER 100 MOTORS

\$270

\$480

NOW...
LIFE-LINE
slashes
a-c motor upkeep costs

Here's how Life-Line motors can save you half the upkeep cost, and more.

A recent survey of 114 large motor users—operating 131,626 a-c motors of 1 to 50 hp—shows how much motors *really* cost when you figure actual "Life Cost".

The survey shows that the yearly average cost of periodically lubricated motors was \$270 for every hundred motors installed.

On lubrication cost alone, Life-Line motors saved this \$270. That's because Life-Line requires no periodic lubrication—no added lubrication of any kind.

The survey also indicates that the yearly outage cost per hundred motors, for repairs and lost machine and man-hours, was \$960.

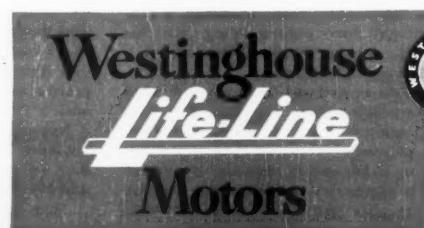
The record of 500,000 Life-Line motors in service, to date, indicates a failure rate averaging less than half that of conventional motors covered by this survey. This means over 50% indicated reduction in motor outage costs—in short, a possible saving of \$480 per year with Life-Line.

Add these savings—\$270 for lubrication plus \$480

for outages—and the result is \$750 per hundred motors per year.

Can you afford to pass up savings like these? Get the facts on the savings possible in your plant. Ask your nearby Westinghouse representative for a copy of B-4321 "How to Cut Motor Costs \$750". Or write Westinghouse Electric Corporation, P.O. Box 868, Pittsburgh 30, Pennsylvania.

J-21514



BUSINESS OUTLOOK

BUSINESS WEEK

JUNE 25, 1949



Steel production this week is below 85% of the industry's capacity.
This is something of a landmark, contrasting with the breakneck output that has been maintained ever since the war ended (except for coal-strike dips).

And the bottom hasn't been reached yet. By midsummer, operations are likely to get down to 75%—or even 70%.

These swings always tend to "overadjust" before turning about.

Steel output for some time has been in excess of consumers' needs.

This became apparent a good while ago (BW-Apr.23'49,p9). Steel men knew it. Yet they were unwilling to cut output just to protect their market. They produced as long as consumers kept yelling for steel.

Now—as a result of high output and order cancellations—the backlog is gone.

This will give you some idea of the way things have gone in steel: New orders for iron, steel, and their products, as shown by the Dept. of Commerce index (1939 average equals 100), stood at 320 in April last year but had plunged to 172 in the same month this year.

One of the things that has steel production on the skids is customers' expectation that prices are going to come down.

The National Assn. of Purchasing Agents met in Chicago this week. Of those polled, 23 out of 25 expect steel prices to come down within the next 90 days. That means 23 out of 25 are not buying—or are buying sparingly.

When industry buys less than its day-to-day needs, output obviously falls too far. It can't come back until consumers have cut their inventories to the very bone.

Until that happens, we won't know the "natural" rate for steel. By September, though, buying for current needs should benefit steel output.

Steel operations, the business indicator to watch earlier this year, now takes a secondary place. Prices of industrial raw materials will be among the most sensitive barometers.

They won't have to go up to signal improvement. In fact, they won't go up at first; they need only to brace to tell their story.

Retail prices should continue to go down for some time after industrial raw materials stop their slide.

Productivity can be improved, for one thing. More low-end products can be put on the market. Higher-priced models can be stripped.

Besides, not all the water has been squeezed out of present prices. And lower raw-material costs haven't been passed on to the consumer.

Q. Forrest Walker, economist for R. H. Macy & Co., this week told the National Retail Dry Goods Assn. that the price decline may continue for another 6 to 12 months. But—and this is most important—he warned that the biggest part of the drop is already behind us.

Deflation in cotton textiles, one of the severest shakedowns, appears to have pretty well run its course.

Latest statistics don't show it, to be sure. Consumption of raw cotton

BUSINESS OUTLOOK (Continued)

BUSINESS WEEK
JUNE 25, 1949

was only 580,078 bales in May. That's down even from the previous month's dismal 597,031 and compares with 785,516 a year earlier. And it is the smallest total for any month since June, 1940.

But that's looking back rather than ahead. Good retail volume, lower prices, low inventories, and sharply reduced mill output have set the stage for an upturn in the not-too-distant future.

Exports are the biggest point of strength in the cotton market.

April shipments, at 591,000 bales, almost matched domestic use for the month, a development unheard of in modern times. For the first nine months of the cotton season, exports were 3,550,000 bales.

This creates a squeeze on cotton prices. With about 5-million bales of 1948 cotton impounded under price-support loans, buyers will find supplies tight until the new harvest begins in volume about a month from now.

Management wage negotiators will find the latest BLS cost-of-living figures useful. The downtrend resumed.

The mid-May index figure was 169.2—off a half-point from the Apr. 15 index. Most of the decline showed up in apparel and housefurnishings. Food costs were steady.

Ample pork is bound to bring meat prices down by next October.

The Dept. of Agriculture reports that, by actual count, the spring pig crop topped 59-million head. Previous estimates, based on farmers' breeding intentions, had been 56½-million. Last year's crop was 51¼-million.

Cattle numbers will show no such expansion. However, with another good corn crop, the supply of well-finished beef would be larger.

But the corn crop is a long way from assured. Just one little item: The corn-borer infestation in Iowa is the worst on record.

Some softening in demand for aluminum, perceptible for some time (BW-May 21 '49, p10), became perfectly clear this week.

A subsidiary of Reynolds Metals laid off about 50 employees in its alumina plant at Hurricane Creek, Ark. The plant wants to work off inventory, and further layoffs are called "a strong possibility."

Another symptom: Shipments of aluminum wrought products in April, at 106-million lb., were 16% below March and 24% under a year ago.

Conditions in the market for copper, lead, and zinc were just a mite improved this week.

A little metal was moving. Some prompt shipments were demanded, showing that a few users, at least, have little or no inventory.

But sentiment was buoyed mostly by talk of stockpile buying.

The new appropriation bill for stockpiling is still tied up. An interim measure, however, ponies up \$40-million for temporary needs.

It's hard to find out how much any industry is eating into inventories, but here are some copper figures that are enlightening:

Fabricators shipped products containing 61,000 tons of copper in May. These same plants took delivery on only 32,600 tons of the red metal in May. That indicates a draft of nearly 30,000 tons on stocks.



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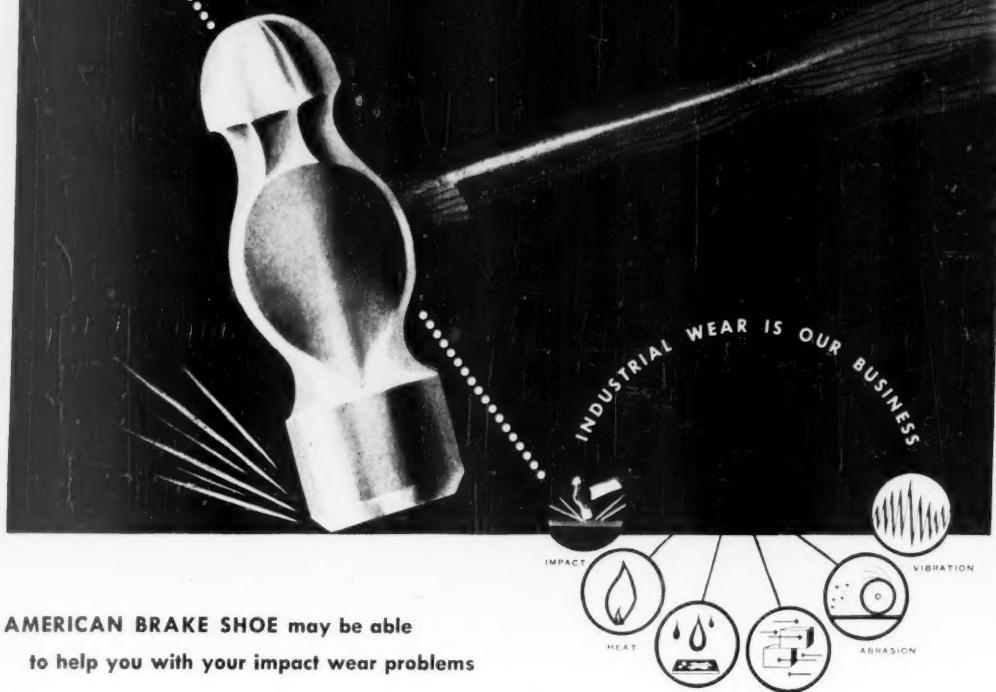
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The Name to Watch in Chemicals



A typical example of the versatility and usefulness of D-40 Detergent is in solutions of sodium hypochlorite for washing and bleaching walnuts and deciduous fruit. Here, good detergency, high surface activity, quick solubility, fast penetration and stability of this outstanding product help solve an important washing problem. So, if you want to speed up the wash and spruce up the product, choose D-40 Detergent.

IMPACT causes WEAR that costs money



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to help you with your impact wear problems**

Daily, the battering of impact . . . the hammer, hammer of moving parts produces premature and expensive failure in machines. The losses from this destructive pounding are often unnecessarily high in replacement costs and time lost.

Our business is to help you curb this cost of wear.

Case studies reveal that Brake Shoe manganese steel screening plates took the abusive battering of 7,000,000 tons of tough Illinois limestone over a period of 27 years. Still in service, they show only little wear. Our manganese steel grinding mill liners took the smashing blows of 535,145 tons of gold ore before replacement was required. 700,000

tons of sharp-edged boulders, sand and gravel have spewed through a Brake Shoe dredge pump and "it still gives excellent service." These are typical results of Brake Shoe engineering and know-how.

For over 47 years, Brake Shoe has worked to make the machines and parts used by industry last longer. Our research has discovered or developed the solution to many problems in the six major fields of wear: impact, heat, corrosion, friction, abrasion and vibration.

We will work with you toward a solution of your industrial wear problems. Send for free booklet, 'Cutting the Costs of Industrial Wear.' The address:

AMERICAN

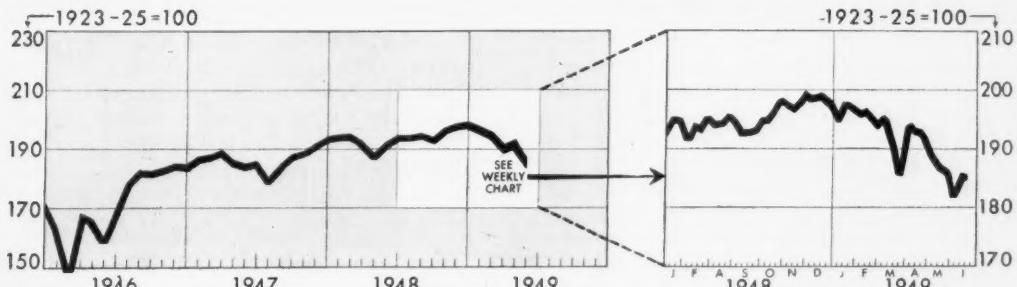
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KELLOG DIVISION • NATIONAL BEARING DIVISION • RAMAPO AJAX DIVISION • SOUTHERN WHEEL DIVISION

FIGURES OF THE WEEK



Business Week Index (above)

PRODUCTION

	\$ Latest Week	Preceding Week	Month Ago	Year Ago	1941 Average
Steel ingot operations (% of capacity)	84.4	86.7	94.1	96.2	97.3
Production of automobiles and trucks	144,973	137,013	116,878	109,259	98,236
Engineering const. awards (Eng. News-Rec. 4-week daily av. in thousands)	\$31,097	\$30,162	\$25,488	\$25,927	\$19,433
Electric power output (million kilowatt-hours)	5,373	5,300	5,255	5,159	3,130
Crude oil (daily average, 1,000 bbls.)	4,868	4,876	4,904	5,492	3,842
Bituminous coal (daily average, 1,000 tons)	2,160	1,850	1,844	2,220	1,685

TRADE

Miscellaneous and L.C.L. carloadings (daily average, 1,000 cars)	72	72	72	82	86
All other carloadings (daily average, 1,000 cars)	63	59	57	69	52
Money in circulation (millions)	\$27,391	\$27,484	\$27,392	\$27,808	\$9,613
Department store sales (change from same week of preceding year)	-5%	-8%	-3%	+1%	+17%
Business failures (Dun & Bradstreet, number)	196	174	172	100	228

PRICES (Average for the week)

Cost of Living (U. S. Bureau of Labor Statistics, 1935-39 = 100), April	169.7	169.5	169.3	105.2	
Spot commodity index (Moody's, Dec. 31, 1931 = 100)	338.4	340.5	344.0	437.0	198.1
Industrial raw materials (U. S. Bureau of Labor Statistics, Aug., 1939 = 100)	210.6	212.9	228.6	277.0	138.5
Domestic farm products (U. S. Bureau of Labor Statistics, Aug., 1939 = 100)	293.7	295.2	292.6	399.1	146.6
Finished steel composite (Iron Age, lb.)	3.705¢	3.705¢	3.705¢	3.211¢	2.396¢
Scrap steel composite (Iron Age, ton)	\$20.25	\$20.92	\$22.08	\$40.66	\$19.48
Copper (electrolytic, Connecticut Valley, lb.)	16.100¢	16.775¢	17.925¢	21.500¢	12.022¢
Wheat (Kansas City, bu.)	\$2.08	\$2.14	\$2.23	\$2.26	\$0.99
Sugar (raw, delivered New York, lb.)	5.87¢	5.85¢	5.79¢	5.39¢	3.35¢
Cotton (middling, ten designated markets, lb.)	33.01¢	32.95¢	32.73¢	36.95¢	13.94¢
Wool tops (New York, lb.)	\$1.616	\$1.598	\$1.571	\$2.012	\$1.281
Rubber (ribbed smoked sheets, New York, lb.)	16.45¢	16.46¢	17.80¢	22.97¢	22.16¢

FINANCE

90 stocks, price index (Standard & Poor's Corp.)	111.0	109.3	116.3	134.1	78.0
Medium grade corporate bond yield (30 Baa issues, Moody's)	3.48%	3.47%	3.44%	3.34%	4.33%
High grade corporate bond yield (30 Aaa issues, Moody's)	2.71%	2.71%	2.71%	2.76%	2.77%
Call loans renewal rate, N. Y. Stock Exchange (daily average)	11-12%	11-11%	11-12%	11%	1.00%
Prime commercial paper, 4-to-6 months, N. Y. City (prevailing rate)	11-12%	11-12%	11-12%	12%	1-2%

BANKING (Millions of dollars)

Demand deposits adjusted, reporting member banks	46,844	46,295	45,816	47,259	+\$27,777
Total loans and investments, reporting member banks	62,603	61,916	62,154	63,085	+\$32,309
Commercial and agricultural loans, reporting member banks	13,385	13,424	13,747	14,245	+\$6,963
Securities loans, reporting member banks	1,908	1,803	2,275	1,715	+\$1,038
U. S. gov't and gov't guaranteed obligations held, reporting member banks	34,867	34,347	33,872	35,250	+\$15,999
Other securities held, reporting member banks	4,502	4,473	4,406	4,220	+\$4,303
Excess reserves, all member banks	1,260	950	1,080	1,132	5,290
Total federal reserve credit outstanding	19,911	19,956	20,735	21,519	2,265

*Preliminary, week ended June 18th.

+Revised.

**Date for "Latest Week" on each series on request.



"Now don't catch a crab--my secretary's watching!"

In Philadelphia, the Schuylkill boating clubs are just a jaunt from the hub of commerce. And on a late afternoon in spring it is not uncommon to watch many a brisk businessman trade his seat behind a desk for a bench behind an oar.

Keeping fit this athletic way is an ancient hobby of businessmen in Philadelphia—a city that has many special characteristics, and ways of its own of doing things. If you're in business here, in America's third largest market, you

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WASHINGTON OUTLOOK



DELIVERED-PRICING BILL may not pass at this session of Congress after all.

The O'Mahoney measure (BW-Jun. 11 '49, p19) has split the anti-monopolists into two camps.

O'Mahoney's group wants to curb monopoly without molesting competition. The other group, headed by Rep. Wright Patman, insists on mothering the little fellow as well.

Nine words in parenthesis are the cause of all the fuss. Sen. Kefauver inserted them in the O'Mahoney bill before the Senate passed it.

Here's the way the Senate bill reads: "A seller may justify a [price] discrimination (other than a discrimination which will substantially lessen competition) by showing that [he acted] in good faith to meet the equally low price of a competitor."

What that parenthesis does is to retain—and even strengthen—the ban on price discrimination that the Robinson-Patman act set up to help the small-lot buyer. O'Mahoney didn't object to the amendment; his main purpose was to clear up the delivered-price muddle created by the Supreme Court's Cement Institute decision.

But Rep. Francis Walter, manager of the bill in the House, does object to Kefauver's nine words. He would like to use the O'Mahoney bill to nullify the Robinson-Patman act. This week he got the House Judiciary Committee to vote out O'Mahoney's bill—without Kefauver's amendment.

That was enough to send Patman out gunning for the whole bill. His strategy: sidetrack the bill with a running investigation by his Small Business Committee until Congress goes home.

BAD JUNE WEATHER in the wheat country is making the Agriculture Dept.'s June wheat forecast—a harvest of 1.3-billion bushels—look high.

Word from Kansas is: Rain and cool weather this month have started root and stem rot and black rust in uncut fields. In Nebraska, if bad weather continues, the harvest could be off one-third to one-half.

All told, it now looks as if the wheat crop could fall as low as 1.1-billion bushels.

MORE PROFIT PROTECTION is in the works for overseas investors. ECA is going to sweeten up its guarantee that profits from investment abroad can be converted into dollars.

During ECA's first year, an investor could count on being able to convert all his profits up to the point where he had earned back all the dollars he put into a project abroad.

New ECA regulations will boost the top limit to 175% of the dollars invested. The exact amount in each case will depend upon the kind of project: Industrial plants mostly will get the limit; periodicals, the least (they already get most of their revenues in dollars from American advertisers).

Guarantee contracts will continue to run until 1962. But they will have this new gimmick: The amount of profit you can be sure of converting in the first five years will be limited. That's to prevent anyone from making a quick killing, selling out to another American who might repeat the process.

CHAIN TELEPHONE LOBBYING is the latest twist in mass pressure on Congress. It was used to help push the pay boost for military people through the House.

Top men in each of the 11 service associations—ordnance, signal corps, infantry, etc.—started it. They phoned member-friends, urged them to wire Congress, then to enlist more friends by phone to do the same.

Congressmen got a sudden spurt of mail and telegrams. Also, as the phoning spread, several newspapers chimed in with editorials.

The chain telephoning technique also was used last year by Harold Stassen's people on the eve of the Wisconsin primary—to stir Republicans into going to the polls.

THE REPUBLICAN PARTY'S organization gets another going-over next week from people still mad about last November's defeat.

The blow-off will come at the National Executive Committee meeting Tuesday.

There will be more talk—particularly from the Westerners—that Dewey-man Hugh Scott should be fired as national chairman. The big gripe is that Scott has abdicated the job of trying to elect a G.O.P. Congress next year.

Scott's critics point first to the fact that Brewster's Senate Campaign Committee has been going its own way since January, with Stassen-man Vic Johnston keeping things moving. Now Joe Martin has set up a high-priced strategy-and-publicity shop to steer the campaign for House seats.

All this moves battle-hardened national committeemen like Ohio's Clarence Brown to mutter:

WASHINGTON OUTLOOK

(Continued)

What's left of the power and prestige of the National Committee?

Brewster's current project is an attempt to give the G.O.P. the jump on Democrats in meeting a depression, if one should come.

He's got a bill for \$50-million to draw blueprints for works projects that could be pulled off the shelf any time they were needed. He says the \$2-billion worth of federal construction now on the shelf isn't enough; that much of it is obsolete.

New Englander Brewster, of course, already has rough business conditions to cope with in his own bailiwick. So his bill looks good back home.

And Brewster figures that if there is a lot of unemployment around the country next year, Republicans will have to be able to point to a job-making program of their own to win votes.

CORPORATION LAWYERS may want to read Justice Douglas' dissent from the Supreme Court decision this week that Ohio can't levy a discriminatory tax on out-of-state companies; Douglas revives the idea that to call a corporation a "person" is a travesty on the 14th Amendment.

Anti-big-business zealots are sure to note it down in their presidential book for 1952.

THE HOOVER COMMISSION blueprint for overhauling the sprawling bureaucracy is being translated into reality.

Truman and Congress are together on this project—so far, anyway.

The seven reorganization plans Truman sent to the Capitol this week have strong bipartisan favor. And congressional leaders are going to keep Congress in session long enough to make the plans effective.

For one thing, Truman sent up the easy ones first. Nobody quarrels with, say, grouping the multitude of activities in the Federal Security Agency into a Cabinet Dept. of Welfare.

Also, Truman shows himself determined to hew as closely to the Hoover Commission proposals as practical politics permit. Where he deviated, it was to fall short rather than to contradict anything Hoover recommended.

Two deviations: (1) The Maritime Commission, a regulatory agency, was not divorced from its ship-operating functions; (2) abandonment of Senate confirmation of postmasters wasn't included in the Post Office plan.

Congress itself is strengthening the authority of the Secretaries of State and Defense and is setting up a centralized services agency; with the seven Truman plans, that's a substantial first leg up on the Hoover program.

Controversial items still to come: merging the government's two biggest construction agencies, Army Engineers and Reclamation; putting operating functions of the regulatory agencies into the Commerce Dept. These won't be tackled this year.

Don't expect any material savings in government expenses right away, just because some overhauling is being done.

Truman's seven plans will become effective Aug. 22, or perhaps sooner. But it will take months to realize any efficiencies.

JOHN CARSON'S NOMINATION to the Federal Trade Commission comes up for hearings in the Senate Commerce Committee next week, that nails rumors that the appointment had been pigeonholed because of Carson's strong co-op ties.

EMPLOYMENT STATISTICS are good or bad, according to the way you look at them.

The number of people looking for jobs is up—3,289,000 in May vs. 1,761,000 in May a year ago. But the number of people who had jobs this May was higher, too.

Of course, you can't ignore the fact that the number of people in nonagricultural work (mostly manufacturing) is down; more workers on the farm is what makes the total working force higher.

Lately, too, you have been reading some big, bearish headlines based on other ways of looking at the figures.

Duration of unemployment, for instance: The number of people out of work from 15 to 26 weeks last month was 486,000. A year ago it was 265,000.

But put that as a percentage of the jobless, and it's 14.8% this year vs. 15% last year. In each group—from one-week-out-of-work to more-than-26-weeks—the percentage is about the same this year as last.

The under-employed make up another group you have been hearing about—the people who work, say, 14 hours a week or less. In May they totaled 1,989,000 vs. 1,838,000 in May last year. Using percentages again, these one-and-two-day-a-week workers were 3.2% of the work-force last month; they were 3% in May, 1948.

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NO SINGLE characteristic denotes the real difference between alloy steels and carbon steels.

Certain of the most useful mechanical properties—strength, hardness, toughness, ductility — can be developed to a high degree, individually *but not collectively* in carbon steels.

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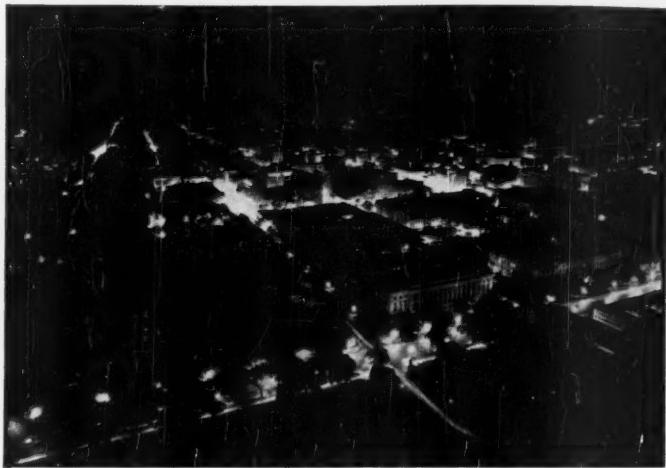
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GENERAL  ELECTRIC

CD49-Q6



LIGHTS WILL BURN LATE in Washington's federal offices if government economists sell their idea that the Administration should start . . .

Fighting a Depression

Washington economists—right or wrong—see a sharp slump ahead. They're figuring on some \$10-billion of pump priming next year. More radical ideas are still hazy—but bear watching.

Washington is beginning to worry about recession.

The top brass at the White House has only just quit murmuring about inflationary dangers and is still pooh-poohing talk of deflation. But down at the lower levels, the federal economists, the think boys, are really disturbed. They have started to tell their bosses: This thing is going to get worse all year; business won't turn up until spring—if then.

• **Clouded Crystal Ball**—As a prediction, that's not very important. Washington forecasters don't have a record that inspires confidence; they were as wrong as everyone else in their belief that the end of the war meant huge unemployment, and they were well behind most businessmen in spotting last fall's turn from inflation to deflation. Washington's new pessimism is nothing to make you change your own personal estimate of business prospects.

All the same, Washington forecasts are important even when they're wrong. They shape policy. The mistaken notion that 10-million workers would be walking the streets after V-J Day

prompted government policies that gave a push to the inflation which actually occurred.

Today's bearish predictions, right or wrong, are already having an important result: Washington is inventorying the resources available to it for fighting off a depression, if that becomes necessary—and is trying to decide what more might be needed.

• **Quick Shift**—Only a couple of months ago, Washington was a fairly cheerful place. Most of the economists there expected some slide in business, but it was to be a gentle, barely perceptible decline. The Federal Reserve index of industrial production might ease off, they thought, by another 10 points, perhaps to about 175 in December, 1949.

But the April figures (the latest ones available) were a shock. They showed that production had already dropped to 179 on the index. And the way business is running now suggests that the June index will end up at about 170.

Today, the government analysts are convinced there's a further severe drop ahead, with the heavy and durable goods

industries taking the brunt of it. Some think that by December the FRB index will be down to 151; not even the most optimistic expect anything better than 166 (box, page 20).

• **Upturn**—Government economic opinion still holds that this downcycle will be a short one, that it will hit bottom in the spring of 1950 at something between 155 and 148 on the FRB index.

That would mean unemployment of 5-million to 6-million. And so long as business rebounded quickly, it wouldn't frighten Washington too much—not enough to produce drastic governmental action.

• **First Steps**—But what if there's no upturn? What if business goes right on through the expected spring bottom?

The Truman Administration can count up a fairly substantial arsenal of antidepression weapons. The New Deal and the war have left lasting marks on U.S. laws and U.S. thinking. Even such an undynamic administration as Truman's would put into effect without much hesitation or much difficulty the sort of measures that Roosevelt had to struggle for in the thirties.

The Washington planners are adding up (1) the measures that are already written into law—things like social security and farm supports, and (2) the measures on which they could expect quick congressional approval—things like tax reduction and public works. Putting them together they can figure on pumping some \$10-billion to \$12-billion into the economy.

• **Results**—Would that be enough to snap a \$200-billion economy out of the doldrums? No one in Washington feels sure. Most see a definite chance that it might. There's great strength as well as great size in the postwar economy; even with 5-million, 6-million, or 7-million unemployed it might take no more than a flick of the hypodermic needle.

At unemployment of 7-million, national income would be down something like \$45-billion from the first quarter of this year. Of course, nearly half of that would reflect nothing more serious than a decline in the price level. So a non-inflationary increase in national income of about \$23-billion would be needed to restore full employment.

Government spending of \$10-billion might easily turn the trick. Most economists figure that a dollar of extra government money-deficit money—generates more than a dollar of income. Back in PWA days, they used to argue that a pump-priming government dollar

Consensus on Production

To find out just how pessimistic Washington has become, what economic predictions are forming government policy, BUSINESS WEEK's Washington Bureau asked major government economists for their

estimate of the Federal Reserve Board index of production, and its principle components, for (1) this month, and (2) next December. The table below shows the range of answers received.

FRB Index of Industrial Production

	<i>(Seasonally adjusted)</i>	<i>Post-war Peak (Actual)</i>	<i>April (Actual)</i>	<i>June (Prediction)</i>	<i>December (Prediction)</i>
Industrial Production	195	179	168-171	151-166
Durables	237	213	195-200	157-185
Nondurables	179	161	155-158	148-158
Minerals	161	146	130-137*	135-140
Iron and Steel	233	219	195-201	155-170
Transportation Equip.	244	238	235-236	200-205
Machinery	283	238	220-225	175-186
Nonferrous Metals	201	177	150-155	135-142
Textiles	177	128	120-123	120-130
Paper and Paper Products	172	145	140-142	135-137
Chemicals	259	235	220-225	185-190
Manufactured Foods	163	163	163	158-163

* John L. Lewis' stabilizing period and part of the coal miners' vacation have been allowed for in estimating Minerals Production; 2.5 points have been subtracted.

raises total income more than \$2—as the first recipient spends it for goods, creates new income which in turn is spent for goods, and so on.

But suppose it didn't work. What then? At that question most of today's bureaucrats will shrug their shoulders and suggest that people like Truman would likely be unable to do more than bump along, as in the late thirties, with a substantial volume of unemployment carried by direct relief and make-work projects. Others think that, under the spur of real economic trouble, Congress and the Administration might be inclined to try new and radical measures.

There's no telling what these new measures would be. In Washington today you find no New Deal-type corps of planners. Schemes pop up here and there, are talked over luncheon tables; but no one pushes them, no one pulls them into a program. Some of the luncheon-table ideas:

Defense spending. This is easy, perhaps perilously easy. The military can always find a need for almost unlimited amounts of money. Munitions buying doesn't cancel out its own stimulating effects—as more radical moves might—by frightening business. And it puts money into the heavy industries where it has maximum economic repercussions.

Direct stimulation of capital expansion through government loans on favorable terms or government construction of plants, as in wartime. The theory is this: Building the plants creates full employment; when you do get full employment you'll need the plants.

Direct stimulation of production. This idea takes a variety of forms: a Commodity Credit Corp. type of plan

for stockpiling surplus autos and shoes; a guaranteed market scheme patterned after the Wyat program for prefabricated houses; application of the New Deal food-stamp plan to products other than food.

Foreign spending. It has theoretical attractions, but few think that the sophisticated arguments of global planners could induce congressmen to send money abroad when there's trouble at home. Even if ECA were continued, exports actually would drop; foreign countries would lose many of the additional dollars they now earn by sales in the U.S.

Surer Bets—All of these ambitious schemes are hazy, uncertain. Much more definite are the standard pump-priming measures that would be taken in the early stages of any significant recession—some of them perhaps as early as next fall, others throughout 1950, if they aren't overtaken by recovery.

Here is a runthrough of the moves that are automatic, and the steps that you can predict the Truman Administration will take if it decides it has to act:

Refunds to veterans of overpayments on National Service Life insurance. Payments totaling \$2.8-billion will start early next year and run through 1950. Congress might order them started this fall.

Tax cuts. Excise taxes would be among the first to go. Some legislators already are talking about repealing the extra levies imposed on transportation, light bulbs, and other items during the war. These cutbacks would boost purchasing power \$1.5-billion a year.

Congress would also move quickly to freeze payroll taxes at the present rate

—1% on both employer and worker. Cancellation of the 1% hike authorized for next January would leave companies and their employees with \$980-million a year more to spend.

Relief for income-tax payers would come more slowly. But if things got tough, individual exemptions would eventually be raised—maybe to \$750 per person. Then rates would be cut, probably for everyone. All told, this could cost the government another \$1.5-billion in revenue.

Relief for corporations would be indirect. The planners would prefer an arrangement that would work to stimulate spending for capital goods. So you might see some scheme for liberalizing depreciation allowances of companies willing to buy new equipment.

Social Security. This agency would automatically begin operating against a depression even before it came. First of all, the volume of retirement benefits would go up \$200-million if industry weeded out about 600,000 workers over 65. And if unemployment should hit 7-million, no-insurance benefit payments would increase by more than \$1-billion.

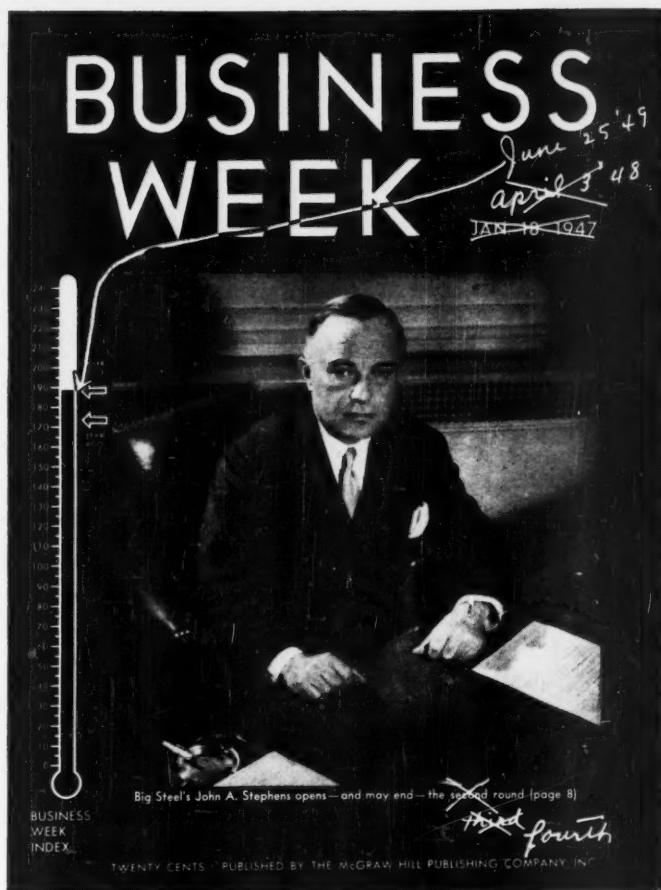
If a depression came next spring, Congress might authorize the Social Security Board to double retirement benefits—increasing present payments by \$500-million. Congress might also lower the retirement age for women—from 65 to 60. That would add some \$100-million to the annual outlay.

Public housing. Housing planners have asked Congress for \$6-billion for an eight-year public-housing program. They want another \$1.5-billion in loans and grants for slum clearance. A bill authorizing the money has already passed the Senate; it faces rougher going in the House—but if it doesn't get by this year, a further rise in unemployment may smooth its path in 1950.

Public works. State and local governments would determine much of the picture here. They have some 6,000 projects in the blueprint stage, costing \$2.5-billion. The federal government has plans for additional projects worth \$2-billion—for dams, postoffices, roads, and airports.

The states and localities want additional projects—\$30-billion to \$80-billion worth. The trouble is that plans for these projects don't exist.

Farm-price supports. These cost the Treasury \$70-million during the 1947-48 crop year; for the 1948-49 crop year, the amount laid out will be at least \$1.3-billion, could easily reach \$2-billion. If a depression came next year, farm payments would surely go higher. Actually the Hope-Aiken law passed last year would lower the supports for 1950. But it may not go into operation. The Pace Bill, now before Congress, would freeze things pretty much as they are.



ONCE MORE steel negotiator John Stephens will set a pattern. But this time it's a . . .

Dubious Fourth Round

With the cost of living issue gone and business sliding, it's not clear what labor can get this time. Some observers expect settlements at 10¢ or less, few pension plans.

Unions and employers were bargaining briskly this week; fourth-round wage talks have started seriously over a broad industrial front.

In steel, coal, and auto, in electrical manufacturing, rubber, farm equipment, shipbuilding, and chemicals, and in a host of lesser industries and local enterprises, labor costs are the issue. And as usual, unions and employers seem to be poles apart.

• **Flat Rejection**—By and large, the management position boils down to a flat rejection of all proposals which will add to operating expenses. A few exceptional companies have indicated willingness to consider a pay boost—but at

least as many are trying to persuade their unions to take a pay cut.

More than at any time since the war, each management negotiator is trying to put the emphasis on the individual economic outlook of his own firm and his own industry rather than on national patterns. All the same, the general business slide and spreading lay-offs offer a strong defense against wage hikes, and no negotiator is neglecting it.

• **Sizable Gains**—On the other side of the table, labor's bargainers have their sights on very sizable gains. They are demanding wage increases ranging from 10¢ to 25¢ an hour. In most cases they also want pensions, welfare benefits,

and a bewildering long list of "fringe" concessions.

This year the unions are relying on a new set of economic arguments to justify their demands. In recent years they rested their case on the rise in the cost of living; now they are emphasizing business profits and the "social responsibility" of business. As for the decline in business: Some labor people elect to ignore it; others attempt to make capital of it by arguing that the medicine for recession is more purchasing power, higher real wages.

• **Steel Bellwether**—Again, as so often before, the steel negotiations (page 96) are central. John Stephens is negotiating with Philip Murray on behalf of U.S. Steel, but he can't avoid carrying the economic destinies of more than the steel corporation into the current Pittsburgh conferences. Almost automatically, other steel producers will copy the contract he signs. Like it or not, a large section of the steel fabricating industry will also follow his lead. And although the "national wage pattern" idea got a severe jolt last year, there are still a lot of employers who are going to let the big fellows do their bargaining.

Coal talks are further advanced than steel, but steel negotiations will have wider repercussions. That's because, as usual, John L. Lewis is in a special position. The need he sees for a share-the-work stabilization plan (BW-Jun. 18 '49, p112) has not impressed its importance on other labor leaders.

Even more significantly the first big question which 1949 negotiations in manufacturing industries have to answer is: How can labor's pension demands be compromised? Lewis is past all that; he already has his miners under a pension system.

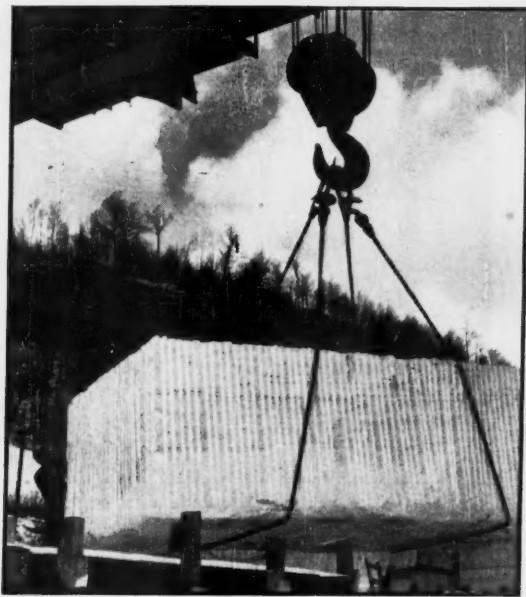
• **How Much?**—Except for the usual expressions of wishful thinking, almost everyone is timid this year about prophesying the ultimate outcome of contract negotiations. Those few observers who have expressed themselves tend to guess that settlements will range from 10¢ an hour down. Agreements already consummated are offered as confirmation.

Anything less than a dime an hour added to labor costs can hardly provide acceptable pension programs. Hence this estimate assumes: that labor won't get retirement benefits in 1949 over any very wide front; that the fourth-round boosts will come in modest hourly rate increases, social benefits, and "fringes."

A few forecasters believe that the present round of negotiations can be concluded without wage increases. However, it is practically certain that only after the unions had been defeated in long and costly strikes would they agree to ride along with rates negotiated last year.



UNDERGROUND QUARRY at West Rutland, Vt., produces white Vermont Pearl, the marble picked for U.N.



ROUGH-CUT BLOCK is lifted by crane on flatcar. It goes first to mill for sawing, then to finishing shop



FIRST Proctor elected governor of Vermont was Redfield, Sr., in 1878



THEN CAME elder son Fletcher D. Proctor, elected governor in 1906



THIRD governor was son Redfield Proctor, Jr., now president of Vermont Marble



LATEST Gov. Proctor of Vermont was grandson Mortimer. His term: 1945 to 1947

The Proctors

One day early in July a truck will pull up at the United Nations headquarters site overlooking Manhattan's East River. Its load: 2 x 3½ ft. slabs of Vermont marble. It will be the first truck in a long parade.

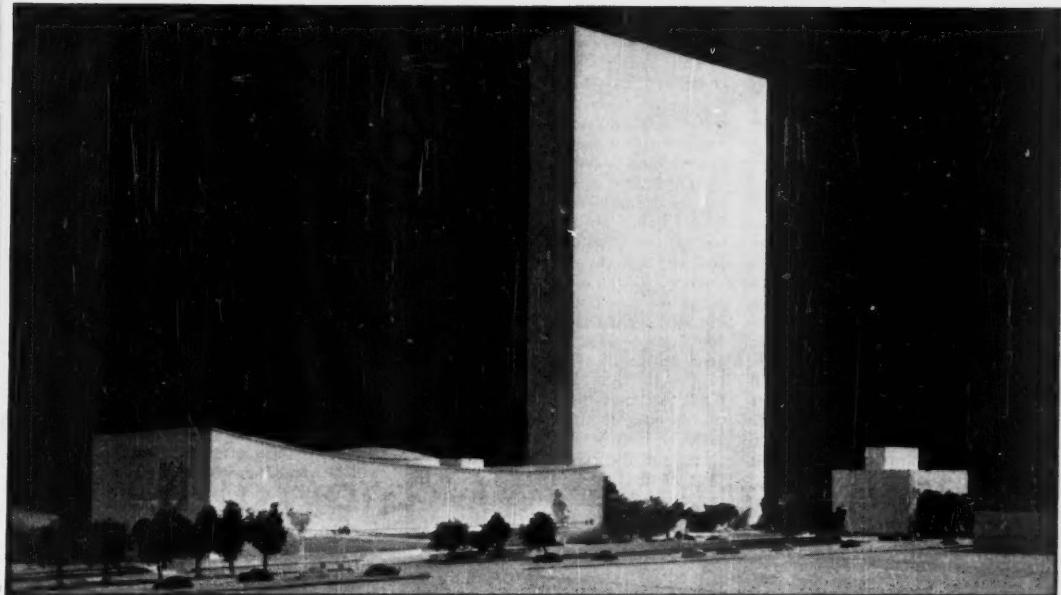
The new U.N. secretariat building is now on its way up. When complete next year it will be the eye-catcher of Manhattan's east side. Slab-shaped, 39 stories high, its broad side walls will present an uninterrupted blue glass surface. Its windowless end walls, uninterrupted pearly white marble.

• **Competition**—The U.N. marble contract is one of the fattest since the war. And, as Vermont Marble Co.'s plain-spoken 70-year-old president, Redfield Proctor, puts it: "It wasn't easy business to get."

Competition came not only from U.S. quarries in Georgia and Tennessee, but from U.N. members in Europe and South America. This was prestige as well as cash business.

• **The Proctors**—But construction men were not at all surprised when Vermont Marble ended up pocketing the 100-carload U.N. order. This old, conservative, Yankee company is the General Motors of its field. Its story is the story of the Proctors, who have controlled the company throughout its 80 years.

The story of the Proctors is, in turn, that of Vermont. A Redfield Proctor,



BIG U.N. SECRETARIAT will get the finished marble facing on its narrow north and south walls. High and wide, the building will rise 544 ft. above its East River site, will tower over the forthcoming General Assembly building

Quarry Vermont Marble for United Nations

lawyer and Civil War colonel, was Vermont Marble's first president and Vermont's first Gov. Proctor. He went on to be president Benjamin Harrison's Secretary of War, wound up as three-term U.S. Senator.

• **The Governor Habit**—Both of Redfield's sons, Fletcher D. and Redfield, Jr. (present company president), were governors of Vermont. Fletcher was president of Vermont Marble from 1889 to 1911; Redfield, Jr., has held office since 1935.

Grandson Mortimer R. Proctor did his turn as Vermont's governor from 1945 to 1947. He is vice-president of Vermont Marble. Grandson Robert D. Proctor, at 33, is the young man of the company. He is a Harvard graduate, Princeton-trained in architecture. He runs Vermont Marble's drafting room, keeps a close eye on sales and promotion.

• **Basic Formula**—Vermont Marble's basic formula, established early by the elder Redfield Proctor, was simple: diversification. Redfield, Jr., has added one new ingredient—research.

Redfield Proctor is proud of his research program: "Our research records about marble are extensive, detailed, and readily available. In this instance [lading the 100-carload U.N. order] technical data did much to strengthen our claims."

Frank C. Partridge, who succeeded Fletcher D. Proctor in the company's presidency, used to explain the basic formula by comparing marble to insurance. He once told his salesmen: "The ownership of one marble quarry is precarious. The ownership of many quarries of diverse kinds, differently located, may be fairly stable." And he added: "Much of the stability of Vermont Marble has been gained by the size and diversity of its holdings and undertakings."

• **Wide Range**—Vermont Marble's present quarries range from New England through Colorado to Alaska. They number, according to Robert D. Proctor, "several dozen." Vermont Marble's catalog includes marbles of every color from Radio Black (in Rockefeller Center's RCA Building lobby) to stark white Danby Vermont (Washington's Jefferson Memorial).

Company plants are almost as scattered as the quarries. The headquarters plant is at Proctor, Vt. The full list includes two more Vermont plants, two in Texas, one in Indiana, one in San Francisco, two in Canada. Some are marble "saw mills," some finishing shops, some both. Subsidiaries include the 20-mile Clarendon & Pittsford R.R., a marble-carrying money maker.

• **New Uses**—Mortimer Proctor's special baby is White Pigment Co., which

Vermont Marble owns jointly with the Thompson-Weinman Co., of Georgia. White Pigment's raw material is marble waste. Its output: marble chips for terrazzo flooring, inert pigments, plastic fillers. Out of White Pigment's new laboratory in Montclair, N. J., are coming many new uses for finely pulverized marble. Among them: fillers for phonograph records, for asbestos shingles, for chewing gum. Newest filler material pulverized by the laboratory has particles as small as fog or tobacco smoke. White Pigment calls this vaporized marble Atomite.

Vermont Marble's research program in cut marble is run almost as an industry service. Bit by bit, Vermont Marble is building up a literature on the characteristics and the capacities of different stones as structural and decorative materials.

• **Home Decoration**—Research is leading Vermont Marble into new markets for its cut materials. In recent years, the marble industry has split its business between "construction" and "monuments." Now Vermont Marble is taking a fresh look at the home-decoration market. While it still believes firmly in carved ornamental bird baths for lawns, its best bet seems to be its new marble tiles. These are competing with ceramic tiles for stall showers, bathroom walls, and parquet floors.

For Better Polls

Probability samples are better than quota samples—but too costly. Now two ways to cut that cost are being tried.

A late ballot in last November's election turned up last week. It was cast by George Gallup, founder and director of the Gallup Poll. What Gallup voted for was to give "probability" sampling a try.

• **Two Systems**—In opinion research, there are two main ways you can handle a sample: (1) the quota system, and (2) the probability system. Last fall the three leading election predictors—Gallup, Crossley, Roper—all used the quota system, and their prophecies went sour (BW-Nov. 13 '48, p.25).

The difference between the two is this:

• **Probability**—In the probability system, you put all the names in the area you want to cover into a hat or bowl, and pick a sample at random. Now you proceed to interview the names you picked—and only those names. You can't substitute, you can't omit. The advantage of this completely random selection is that every name in the hat or bowl had an equal chance of being picked; there's no systematic bias.

The big drawback is the expense. If somebody isn't home when your interviewer arrives, the interviewer has to go back again—and maybe again and again.

• **Quota**—In the quota system, you try to save time and money by taking shortcuts. You assume that people can be grouped or "stratified" into certain classes—age, for instance, or color, or creed, or economic level. So you choose your strata, and tell your interviewers to buttonhole so-and-so-many people from each.

There are two loopholes in this system. One is that exact data on the strata are usually not available. Next, the interviewer can introduce a bias in choosing his guinea pigs. He can, for instance, nab first-floor families as against fourth-floor.

• **Time-Place Factor**—Gallup now thinks he has licked the expense of probability sampling by introducing a "time-place" factor.

He has tried to determine when people are most likely to be at home—so that the interviewers will have a better chance of finding them in on the first call. He still does his best to talk to every person in his sample, but he doesn't have to make as many callbacks.

• **Two-Year Study**—Gallup got his data on who is home when from a two-year study of 31,000 people. These data are broken down on a "quota" basis—that

is, by city size, age, race, occupation, economic level, etc.

Time-place sampling will be carefully tested by the Gallup organization before it is put to use on a national basis.

• **No-Callback System**—Another market-research expert claims to have gone even further than Gallup in reducing the cost of probability sampling without reducing its accuracy. Alfred Politz, head of Alfred Politz, Inc., reports in the *Journal of the American Statistical Assn.* that he has a way to eliminate callbacks.

Here's what Politz does: He asks the people he does find at home whether or not they were also at home at five specific times over the preceding week. This gives him information on six times, including the time of the actual interview. Thus, he knows how many of the people he has interviewed are normally home at 1/6 of the intervening times (these are the people who were home for the interview, but not at any of the other five times). And he knows how many were home at 2/6 of the times, at 3/6, and so forth, up to 6/6.

He is justified in assuming that he has talked to all of the people in his sample that are home all of the time. And he can assume he has seen just half of those who are home 3/6 of the time; just 1/6 of those who are home 1/6 of the time, and so forth. So he groups all of the answers of the people who are home 1/6 of the time—and multiplies the result by six. He multiplies the answers given by the people who are home 2/6 (or 1/3) of the time by three. He multiplies the answers given by people who are home 3/6 (or 1/2) of the time by two. And so forth. Then he adds the totals.

• **Why It's Accurate**—Here's why the result is statistically accurate: A sample is indicative of the entire population if the sample is large enough—and if it's completely random. That's the original probability sample. The people in that sample who are at home on the first call are also completely random, except for one factor: their at-home-ness. The very fact that they are at home, while the rest of the people in the sample are not, is nonrandom; it introduces a bias.

Politz' method corrects for that one nonrandom factor of at-home-ness—and recreates a completely random sample.

The Politz method has already been used in two studies by the Advertising Research Foundation—and the foundation says it got very good results.

• **Unsolved**—Even if all of the pollsters shift over to probability samples, only one of the two big problems of election polls and similar opinion surveys will be solved. The probability sample can't guarantee that people won't change their minds.

Businessmen should take note, however, that this problem is not important in most business surveys.

Sears Cuts Prices

In big fall-winter book, out this week, they average 6½% below last January's catalog. Some items off 31%.

Sears, Roebuck & Co. expects prices to keep on slipping—at least for the rest of the year.

• **Fall-Winter Catalog**—The evidence lies in Sears' big semiannual catalog, out this week. On 62% of the close-to-100,000 items listed in this fall-winter book, prices are lower than in the spring-summer catalog.

The front page emphasizes Sears' present thinking about prices: It promises mail-order customers that any further price cuts after the book is out will be passed on to them in refunds.

The prices in the new book are down on an average of 6½% from those in last January's. They are down even more (8½%) from the catalog of a year ago.

• **Reductions**—In some lines—notably auto batteries and armored cable—reductions are as much as 31%. Here are some of the more substantial price cuts: 15% on sheets and sheeting; 11% on power tools; 12% on paints; 9% to 11% on automatic water heaters, refrigerators, stoves, washing machines.

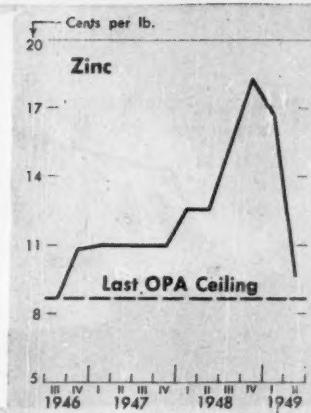
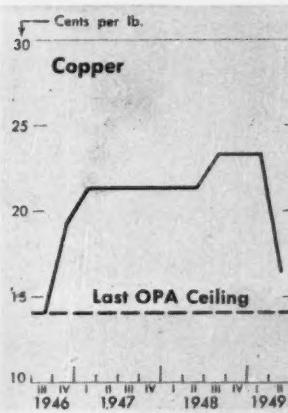
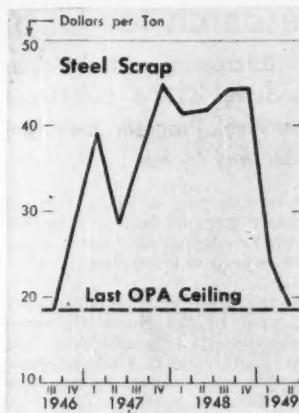
Sears bases these price comparisons on a sampling of about 2,000 items in each catalog. Representative of all classes of goods, they are weighed according to their importance in sales.

• **New Items**—Along with lower prices, Sears' catalog introduces to its mail-order customers several new items. These include a private-brand standard typewriter, a portable Silvertone television set with a 7-in. screen (\$149.50), and a cast-iron sectional furnace.

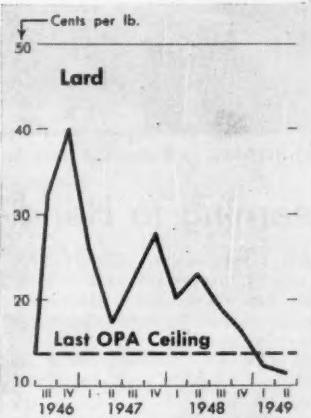
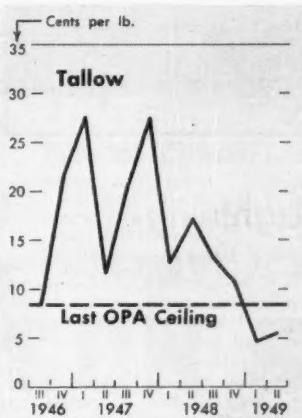
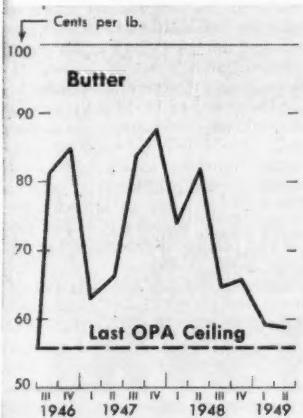
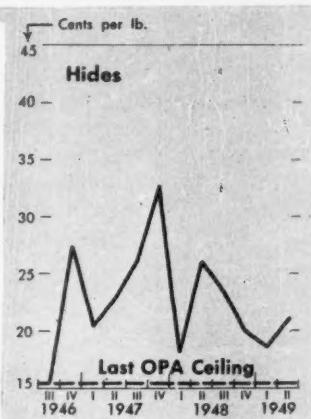
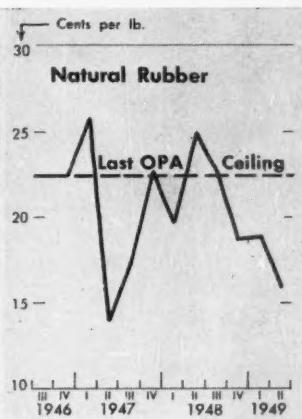
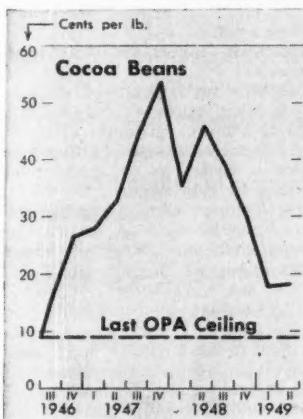
• **Policy's Results**—Sears has been working its prices down for some months. Even so, its May sales came to within 4% of last May's volume. The May recovery brought sales for the first four months of Sears' fiscal year (starting Feb. 1) to 6.4% below the same 1948 months. April sales ran 4.6% behind 1948; March, 12.6% behind; February 8.3% behind.

What pricing policy will the other big mail-order houses follow in the coming months? It was a little too early this week to say for sure. Sears, as usual, brought its semiannual catalog out a little before the other houses.

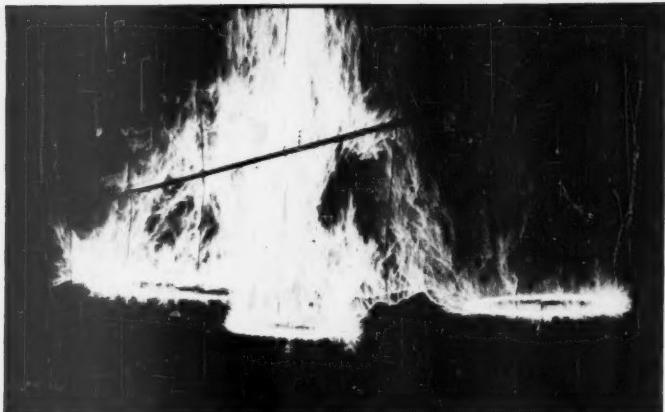
Sears, however, is not alone in its price-cutting policy. Aldens came out last week with a special "cut-price clearance sale" catalog. It offered 120 pages of merchandise at sharply reduced prices, some 50% lower. Electrical appliances were off as much as 33%.



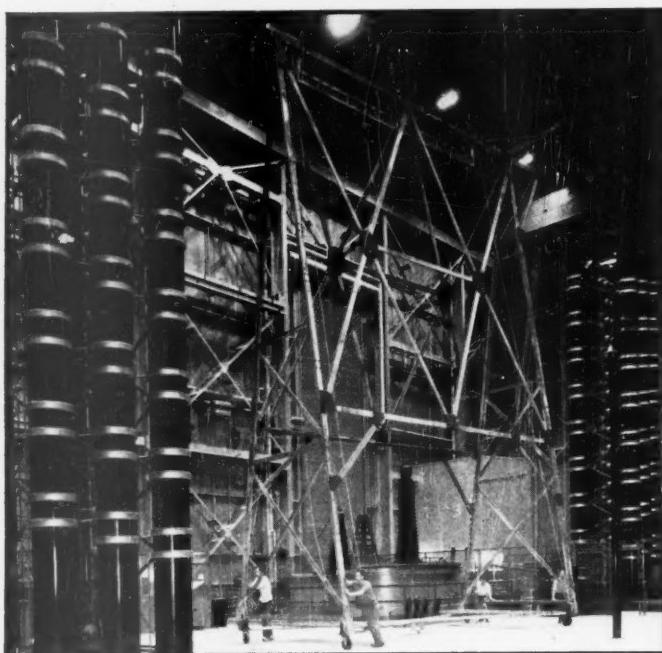
Back Toward OPA—Without Bowles



Data: Bureau of Labor Statistics



MAN-MADE high-voltage arcs sputter 20 ft. in air at General Electric Co.'s new . . .



LIGHTNING LAB where G.E. researchers will use 15-million-volt discharges in . . .

Learning to Handle Lightning

Ben Franklin's kite and key—1949 style—went to work last week in Pittsfield, Mass. There, General Electric Co. officially opened its new High-Voltage Laboratory in which "synthetic" lightning bolts of 15-million volts can be created. Purpose: to carry on basic research on the effects of lightning and high-voltage electric discharges on power transmission lines; to develop

ways of coping with real lightning. G. E. has \$2-million in the new setup. It includes: (1) a powerplant that could serve a community of 10,000 people but instead will furnish the electric oomph for man-made lightning; (2) a high-voltage hall for the lightning flashes; (3) a low-bay where equipment tests are made; (4) a controlled-temperature laboratory.

Research for U. S.

Bill creating national science foundation O.K.'d by House committee. Program may get under way by fall.

After four years of trying, Congress is finally going to set up a national science foundation. The object: to promote research in universities and laboratories.

• **Green Light**—The Priest bill approved last week by the House Commerce Committee meets the objections President Truman had to a bill he vetoed two years ago. And Rep. J. Percy Priest of Tennessee is pretty sure he can get the leaders to put the law through the House before summer adjournment. The Senate already has voted a similar bill. The plan is to get the program started this fall.

The cost will be roughly \$15-million in the first year, stepping up to \$25-million a year.

• **Functions**—In brief, the science foundation will:

(1) Maintain a register of scientific and technical personnel, and provide a clearing house for personnel data;

(2) Award students some \$2.5-million a year in scholarships and graduate fellowships for basic research;

(3) Contract with universities and laboratories for scientific research (the foundation cannot operate any laboratories or plants).

The first year's budget for Item 3 is \$12.5-million.

The foundation would consist of four divisions to direct research in: (1) medicine; (2) engineering, mathematical, and physical sciences; (3) biological sciences; and (4) scientific personnel and education.

Hitherto, the program has stalled on two main points: The administrative setup, and the question of patent rights.

• **Administration**—Truman vetoed the only measure Congress sent him because the governing board of the foundation would have been practically autonomous. The Priest bill entrusts major executive functions to a \$15,000-a-year director responsible to the President. There would be a national science board of 24 members, appointed by the President and confirmed by the Senate for six-year terms.

• **Patents**—The Priest bill puts the developments of the foundation under the regular patent laws. Section 12 of the bill reads: "Nothing in this act shall be construed to authorize the foundation to enter into any contractual or other agreement inconsistent with any provision of law affecting the issuance or use of patents . . ."

How to *streamline* Your Steel Inventory

During the past period, steel users naturally have been most interested in getting the steel they needed without too much emphasis on quality. Inventories were built up as much as possible because of excessive demand and uncertain supply.

Now, the time has come when industry can begin to streamline inventories and can place more emphasis on quality. While a few products remain on the critical list, a balance between supply and demand has been reached for most steels. Under these conditions, yesterday's "normal" inventory may loom large and steels of doubtful ancestry may prove a liability.

We are glad to be in a position again to recommend that you keep your inventory at a

practical working level and use our warehouse stocks as your inventory reserve. The many Ryerson Steel-Service Plants throughout the country are particularly well equipped to help you keep your inventory streamlined. Carbon, alloy and stainless steels in thousands of analyses, shapes and sizes are ready for quick shipment—and their uniform high quality is assured by our Ryerson Certified Steel Plan.

So don't let changes in market conditions or product design catch you with high inventories. As warehouse stocks improve we suggest that you extend a conservative buying policy over an increasing range of your steel requirements and keep in touch with us for your current needs.

PRINCIPAL PRODUCTS

BARS—carbon & alloy,
hot rolled & cold finished

SHAFTING—cold finished,
ground & polished, etc.

STRUCTURALS—channels,
angles, beams, etc.

PLATES—sheared & U. M.,
Inland 4-Way Floor Plate

SHEETS—hot & cold rolled,
many types & coatings

TUBING—seamless & welded,
mechanical & boiler tubes

STAINLESS—Allegheny
bars, plates, sheets, etc.

REINFORCING—bars
and accessories

MACHINERY & TOOLS—for
metal fabrication

RYERSON STEEL

JOSEPH T. RYERSON & SON, INC. PLANTS AT: NEW YORK • BOSTON • PHILADELPHIA • DETROIT • CINCINNATI
CLEVELAND • PITTSBURGH • BUFFALO • CHICAGO • MILWAUKEE • ST. LOUIS • LOS ANGELES • SAN FRANCISCO



New windows to Wonderland...

OLYMPIAN
Hiawatha
CHICAGO • PACIFIC NORTHWEST



New private rooms. Work comfortably and sleep soundly in a Roomette, shown above. Bedrooms (right) open to form connecting suites for business conferences.

THE
Milwaukee
ROAD

Private-room sleeping cars with glass-enclosed Skytop Lounge on the Milwaukee Road's Olympian HIAWATHA are perfect for cross-country living.

Double bedrooms have enclosed lavatory and full length closet. Roomettes for single occupancy provide room facilities in compact form.

The Olympian HIAWATHA also carries thrifty Touralux sleepers and 48-seat Luxurest coaches; diner and Tip Top Grill with snack section and cocktail lounge.

H. Sengstacken, Passenger Traffic Manager, Union Station, Chicago 6, Ill.



BUSINESS BRIEFS

Dearborn Motors is following up a banner year in 1948 (it sold 500,000 Ford tractors, 500,000 implements), with a \$2.5-million building program. That indicates little concern over Harry Ferguson's \$251-million patent-infringement suit (BW-Jan. 17 '48, p.25).

Another steel user—Borg-Warner—now finds it cheaper to buy finished steel than to make it in a high-cost plant acquired during the shortages (BW-Jan. 11 '49, p.38). So it wants to sell its old-fashioned Louisville (Ohio) sheet plant.

Orders for machine tools continued to drop during May, says the National Machine Tool Builders Assn. That drives another nail into the talk of an upsurge in the industry (BW-May 21 '49, p.21).

State privilege taxes apply to the intra-state operations of a company engaged in interstate commerce. The U.S. Supreme Court has ruled thus in upholding a Mississippi tax of 2% on Interstate Oil Pipe Line Co.'s gross receipts. Though it transports crude oil within the state, the company argued that all of the oil goes into interstate commerce.

The government can't stop Panhandle Eastern Pipeline Co. from selling its gas reserves to a subsidiary, said the Supreme Court in another decision. The subsidiary operates wholly within Kansas—which puts it out of FPC's control.

New \$2-million chemical plant has been opened by Pennsylvania Salt Mfg. Co. at Calvert, Ky. It will turn out sulphuric and hydrofluoric acids.

Regional shifts in demand for agricultural machinery are partly responsible for International Harvester's decision to close its Auburn (N. Y.) plant in 1950. Other factors: the plant's age; high freight rates on raw materials.

Latest state to cut oil output is Texas, which has reduced the maximum daily output during July and August by 125,100 bbl. Louisiana and Arkansas have also cut production.

Textron Incorporated has been having something like the mass-resignation troubles that recently afflicted Montgomery Ward. Five directors have resigned from the Textron board. Apparent reason: disagreement with Royal Little's decentralization program.

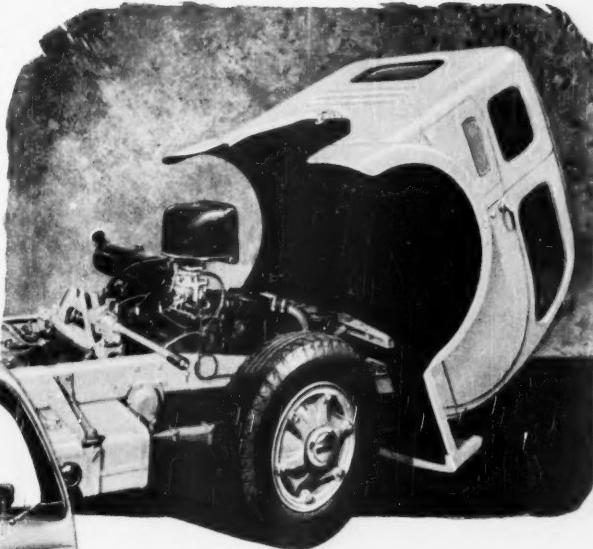
Decline in business is the reason Sylvania Electric Products gives for laying off about half the 750 employees in its Altoona (Pa.) plant.

PERFECT FRONT-END ACCESSIBILITY

...for both driver and mechanic

THE DRIVER saves time and energy . . . thanks to curb-level step, wide doors, low cab floor with no obstructions to interfere with getting in and out either side, quickly and easily.

THE MECHANIC saves time, is able to do better work . . . thanks to complete accessibility of mechanical parts at "bench-height". Power-lift cab provides this in less than 30 seconds at the turn of a key.



THIS ENTIRELY NEW KIND OF TRUCK is a modern machine tool of transportation . . . engineered to do more work in less time. It saves time . . . "getting there" in present-day traffic, parking and unloading. It saves driver energy . . . helps to make him a better driver. It saves servicing and inspection time . . . permits the maintenance man to do better work because of "bench-height" accessibility to the engine and all front-end mechanical parts. Ask your local White Representative for all the time- and cost-saving facts as they apply to your business.



THE WHITE MOTOR COMPANY
Cleveland 1, Ohio, U. S. A.
THE WHITE MOTOR COMPANY
OF CANADA LIMITED
Factory at Montreal



FOR 50 YEARS THE GREATEST NAME IN TRUCKS

Americans enjoy better products like these...



made by thousands of manufacturers...



who consistently use Kaiser Aluminum!

ON EVERY COUNT—lightness, strength, beauty, economy, and freedom from rust—aluminum has proved its advantages over other materials.

That's why it's the ideal metal for such a wide range of uses, from appliances to store display units, from fences to buses.

As a key source of this wonder metal, Permanente Metals, producer of Kaiser Aluminum, has added one quarter of a billion pounds to the nation's annual supply. Almost as much as the entire industry produced a decade ago.

And Permanente Metals has combined this vast production with a standard of quality...and a record for dependability...that is unsurpassed. Permanente Products Co. (pronounced *Per-ma-nen-tee-*) 605 Kaiser Building, Oakland 12, California.

Permanente Metals

PRODUCER OF

Kaiser Aluminum

A major producer in a growing industry

REGIONS

What Ails the South

National Planning Assn. traces the area's troubles chiefly to low per-capita income. Basic trouble: With inadequate capital, the South must sell low-profit items, buy high-profit ones.

More big northern-controlled industry; fewer farmers and more big, mechanized farms; lower prices for cotton and tobacco. That, in effect, is what the South needs, according to a report by the National Planning Assn.

• **Special Report**—Just a year ago, the President's Council of Economic Advisers asked N.P.A. to do a special report on "The Impact of Federal Policies on the Economy of the South." N.P.A. asked Dr. C. B. Hoover and Dr. B. U. Ratchford, both of Duke University's Dept. of Economics, to do the job.

This week N.P.A. came up with the result: a tough-minded, hard-boiled analysis, with recommendations that will make many Southerners squirm.

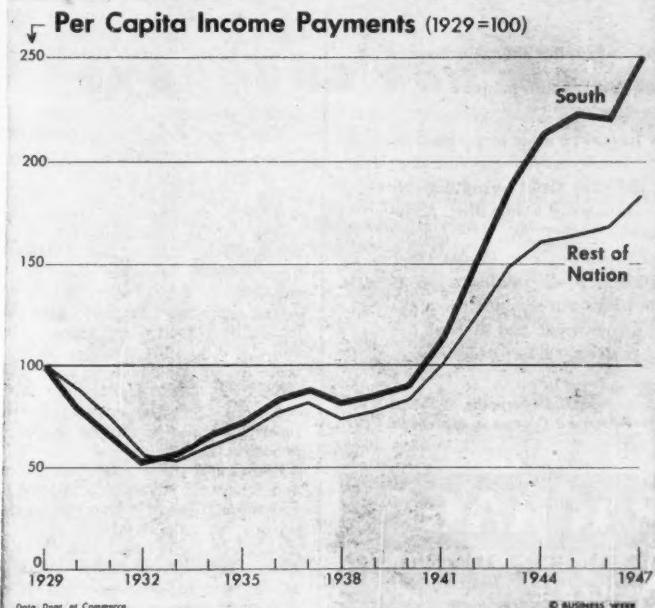
• **Principal Problem**—The South's big problem, say Hoover and Ratchford, is its low per-capita income. Income has been increasing—and the South's rate of improvement has been greater than that for the rest of the country during

the last 20 years (chart). But even this faster rate hasn't been able to bring the South up to the rest of the country. So per-capita income in the South in 1947 was only 63% of the average for the rest of the country.

The report traces the income problem to two main factors: (1) the low ratio of capital and natural resources to population, as compared with the rest of the country; and (2) unfavorable "terms of trade" between the South and the rest of the country.

• **Terms of Trade**—Here's what the report means by unfavorable terms of trade: The products that the South "exports" to the rest of the country are fairly standard—cotton, tobacco, textiles, wood pulp. They require the use, mostly, of cheap manual labor; they are grown or made mostly by small producers. So competition keeps prices down.

The products that the South "im-



RISE IN INCOME in the South has far outstripped the rest of the country. But dollar-wise, the South started from a much lower base, so it still hasn't caught up

30-SECOND QUIZ

on New York State business opportunities

1. People plus money equals buying power:
 - (a) What per cent of the country's people live within 500 miles of the center of N. Y. State? 40% (); 25% (); 10% ()?
 - (b) How do the average New Yorker's savings compare with those in other states? Highest (); average (); below average ()?
2. Efficient banking service plus state-wide coverage adds up to smoother business operation. Can you get this combination in New York State?

1. (a) 40% (b) highest. 2. Yes—but only from Marine Midland—because, in New York, Marine Midland is the only state-wide banking organization. And this really accelerates your business routine. Hurries check and draft collections, for example. Gives you access to bankers who have a thorough understanding of local business conditions. It's profitable to do business in New York State . . . and to bank with The Marine Midland Trust Company of New York.

Marine Midland Banks serve...

Buffalo	Jamestown
New York City	Johnson City
	Lackawanna
Adams	Lockport
Albion	Malone
Alexandria Bay	Medina
Antwerp	Middleport
Attica	Niagara Falls
Avon	North Tonawanda
Batavia	Nyack
Binghamton	Oswego
Copenhagen	Palmyra
Corinth	Phoenix
Cortland	Rochester
Depew	Snyder
East Aurora	Sodus
East Rochester	Tonawanda
Elmira	Troy
Elmira Heights	Watertown
Endicott	Watkins Glen
Evans Mills	Weber
Fulton	Westfield
Holley	Williamsburg
Harrisonheads	Wilson



MARINE MIDLAND TRUST COMPANY of New York

It's NEW... OUTSTANDING

**...and wrapped at
lowest cost**



**Like so many manufacturers who are improving their packages,
CHAMPION chooses "Package" Wrapping Machines**

The Champion Spark Plug Company has taken a big step ahead in adopting this unique package. For it is not only distinctive, but affords utmost display and protects the plug from being marred by handling. And the heat-sealed Pliofilm wrap keeps dust, moisture or corrosive gases from entering the package.

Hooked up with a carton erecting machine, our Model DF-1 wrapping machine produces a neat hermetically sealed wrap at a speed of 90 plugs per minute. The plugs are set into the trays as they travel along the specially-built conveyor and girls at the discharge pack them into cartons... A perfect set-up that insures lowest cost.

LOOK TO "PACKAGE" when seeking sales-producing wrapping at lowest cost. We have the largest line of wrapping machines and 35 years of experience in solving difficult wrapping problems.

**Write for our folder
"Packages that Sell"**

showing the many types of wrapping produced by our machines.

PACKAGE MACHINERY COMPANY

SPRINGFIELD 7, MASSACHUSETTS

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SAN FRANCISCO	DALLAS	SEATTLE	DENVER	LOS ANGELES
			TORONTO	MEXICO D.F.

ports," on the other hand, are usually highly fabricated; they are characterized by "administered prices." And these prices can be "administered high," since the products are usually made by relatively small groups of manufacturers.

In short, the South is too dependent on agriculture—particularly on its two big cash crops, tobacco and cotton. And its industries—such as textiles, lumber, and food—are too standard, unspectacular, and basic for the region to be able to wield economic power aggressively.

• **Industrialize**—The solution? Here's the report's answer: Get people off the land; mechanize and diversify Southern agriculture. This means that the rural people are going to have to get urban jobs. And that comes back to the old standby: the need for more industrialization—particularly in complex fabricating lines, rather than in the South's present standard commodities.

The men who wrote the report know that that's not an overnight job. They have, however, some ideas about how to do it. One way: Encourage big industrial corporations to expand into the South.

The report doesn't say that outright. But throughout its 154 pages, it pooh-poohs the evils of absentee ownership. The report also stresses the importance of federal tax policy on corporations; the authors feel that too-heavy taxes are bound to slow down corporate expansion.

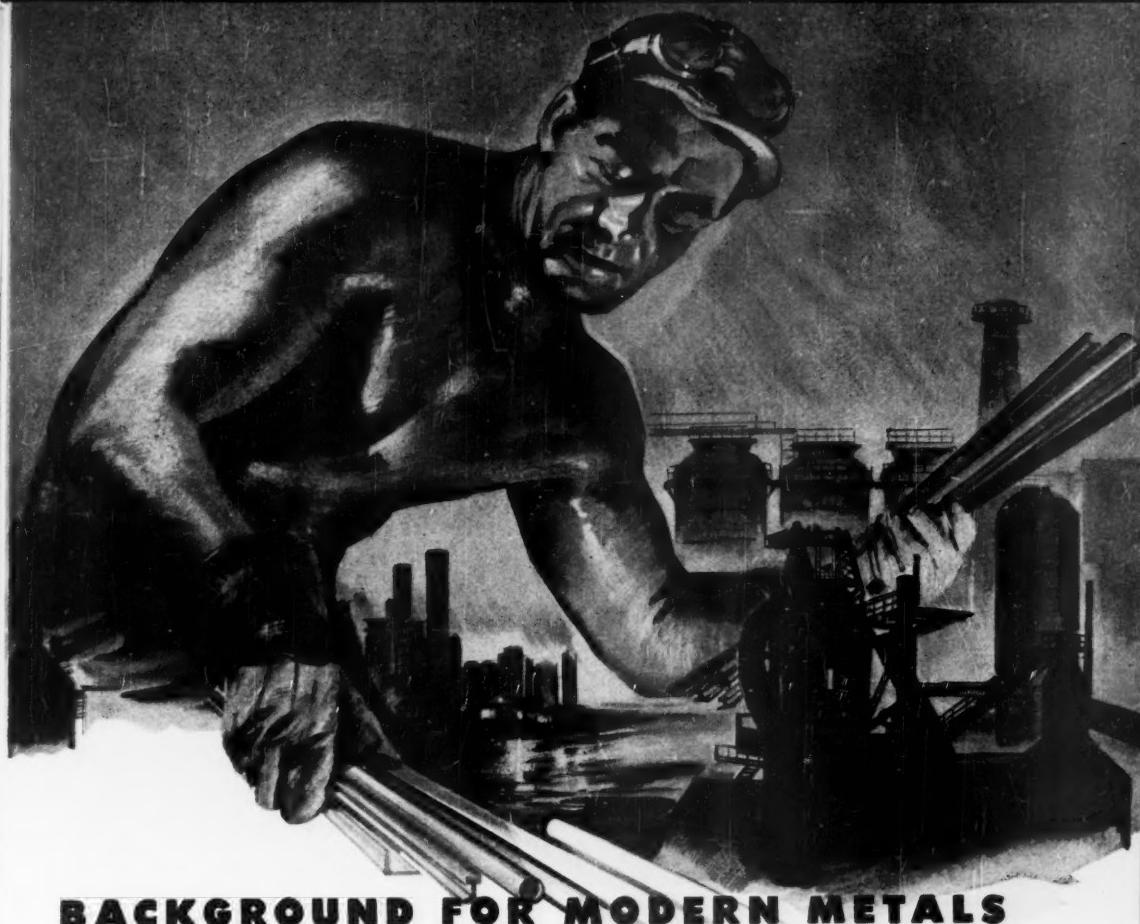
• **Federal Aid**—Hoover and Ratchford shy away from recommending direct federal capital outlays for industrial expansion in the South. They don't toss it out entirely, however; they say that it may have to be used as a sort of last-ditch stratagem.

The report definitely approves some types of direct federal aid to southern industry. One is a guarantee that the South will get its fair share of any new defense plants. Another involves more federal aid for research in the South—which, despite recent gains, still lags behind research in other parts of the country.

The report also suggests some plans for indirect federal assistance. These boil down to such items as: study of minerals, oil, and gas; more water power of a TVA nature; more forest service and soil conservation; more federal aid for welfare and education; higher tax exemptions.

• **Farm Plans**—As to agriculture, Hoover and Ratchford advocate continued federal aid and loans for land purchases by tenants, for agricultural research, and so on. But they emphasize that all federal farm policies in the South should aim at bigger farms, mechanization, diversification of crops—rather than at keeping old, outmoded farming practices in effect.

The report won't win a popularity



BACKGROUND FOR MODERN METALS

The ferrous and non-ferrous metals industry is daily facing problems that must be met by practical and creative engineering. To these, Blaw-Knox lends the combined strength of its various divisions, supplying equipment to reduce costs, eliminate waste and increase production. Broadly, the contributions of Blaw-Knox to steel and other metals may be defined as follows:

- A complete staff of metallurgical and designing engineers who design Blaw-Knox equipment in accordance with modern mill practice.
- Eleven divisions and eight fully equipped plants.
- A constantly widening variety of products and equipment in keeping with the latest technological advances.

Blaw-Knox products have successfully contributed, throughout the years, to the reduction of costs in producing and rolling ferrous and non-ferrous metals.

In many other fields, Blaw-Knox engineering thinking and engineered products have helped to increase output and reduce costs. Representative Blaw-Knox products and services include:

Steel Plant Equipment... Rolls for Steel and Non-Ferrous Mills... Rolling Mill Machinery... Construction Equipment... Radio and Transmission Towers... Power Piping... Steel Grating... Steel and Alloy Castings... Clamshell Buckets... Sprinkler Systems... Engineering, Procurement, Fabrication and Construction of Complete Plants and Equipment for the Food, Chemical and all Specialized Manufacturing and Process Industries.

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*Operates as a division of Blaw-Knox Construction Company

**Subsidiary of Blaw-Knox Company



He kills more than a billion germs an hour!

The heat's really on for germs in milk bottles! At Martin Century Farms' modern bottling plant, a cleansing-sterilizing bottle washer kills the "bugs" that would like to live in the milk bottles. This procedure consists of washing the bottles in a hot alkali solution and rinsing with purified water. Thus powerful dairy chemicals work together to help assure you clean, healthful milk.

For a great many years now, Pennsalt has been supplying America's tremendous dairy industry with high quality dairy chemicals . . . cleansers, bactericides, dairy sanitation aids that help put better milk on your table.

This is another example of the part Pennsalt chemicals play . . . in agriculture, in industry, and in the home. Hundreds of Pennsalt chemicals, teamed with the ingenuity of Pennsalt engineering service, are helping to make things better, brighter, cleaner, healthier, more abundant.

They may be able to aid in solving some of your problems. A word from you puts almost 100 years of chemical experience at your disposal. Write: Pennsylvania Salt Manufacturing Company, 1000 Widener Building, Philadelphia 7, Pa.



PROGRESSIVE CHEMISTRY FOR 99 YEARS

prize among farmers for its price-support ideas. Its plan goes a step farther even than the Brannan plan. Brannan's plan would let the market price of any nonstorable product go as low as it wanted to; the farmer would get a payment for the difference between the market price and the support price. Hoover and Ratchford would make two changes: (1) They propose adding cotton and tobacco—two storable commodities—to the list of products supported in this way; and (2) where Brannan would use quotas and acreage controls to restrict production, the N.P.A. plan would lower production payments to discourage overproduction.

Hoover and Ratchford feel that their plan would be less costly to consumers than the Brannan plan. They admit, however, that the Brannan plan will have more appeal to farmers.

• **National Problems**—The N.P.A. report emphasizes that you can't give the South a boost economically unless you maintain full employment. That, of course, is a national problem, not a regional one. The report puts similar stress on the national—not-just-regional aspect of such things as minimum wages, labor policy, tax policy, farm-price supports.

There's an implied political moral to the N.P.A. report: Nowadays you can't horse-trade with the southern states the way you could 15 years ago. At that time there were plenty of propositions—such as TVA, AAA, and other plans—that the New Deal could give the South in exchange for support of other programs. Now there are really no federal programs to offer the South.

MOURNING FOR GAS TAX

All over New Orleans, one Tuesday, gasoline pumps and service-station doors were wreathed in black. It was part of a campaign to force repeal of Louisiana's extra 2¢ gas tax passed last year.

The service station operators marked "Black Tuesday"—the June anniversary of passage of the extra tax—by passing out sympathy cards. The cards reminded motorists that they pay the highest gas tax in the nation (9¢ state, 1½¢ federal), and included a tab to be filled in with the motorist's name. Filled-in tabs were collected, mailed by the Louisiana Petroleum Industries Committee to legislators as a demand that the tax be lowered.

Black Tuesday was observed by almost all stations in New Orleans, and by a scattering of other stations throughout the state—notably in anti-Long Baton Rouge.

Governor Earl K. Long lashed back by telling motorists that the service-stations operators and petroleum companies "had no Black Tuesday when they were busy raising prices."



"EKOTAPE" wins
highest honors from jury of
the most critical recorder users

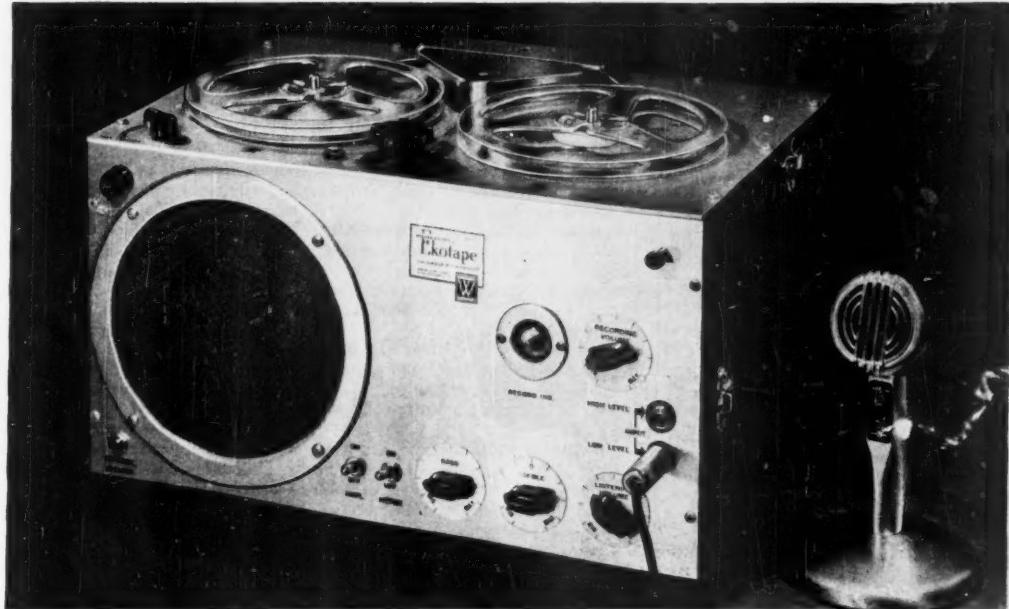
"First place for 'Ekotape'!" was the enthusiastic verdict of an independent jury of musicians—the severest critics of any recorder—after extensive "blindfold" tests of leading makes.

The "Ekotape" that won the first award from these judges also offers greater value for business and professional use. Clear, powerful tone is as important for speech as for music. So are simple operation, dependability, and the many features that offer wide versatility . . . features such as fast forward and rewind speeds, electronic recording volume indicator, separate bass and treble tone controls to overcome deficiencies in room acoustics.

"Ekotape" is first choice of businessmen, too, for recording speeches, meetings, for sales training . . . for hundreds of other uses. Its outstanding quality makes it a wise investment.

See and hear "Ekotape"—compare it. You will be impressed by its superlative tone quality, power, convenience, and features. Get a demonstration from your dealer or mail the coupon below.

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Ekotape
TRADE MARK
RECODER-REPRODUCER



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"Where Quality is a Responsibility and Fair
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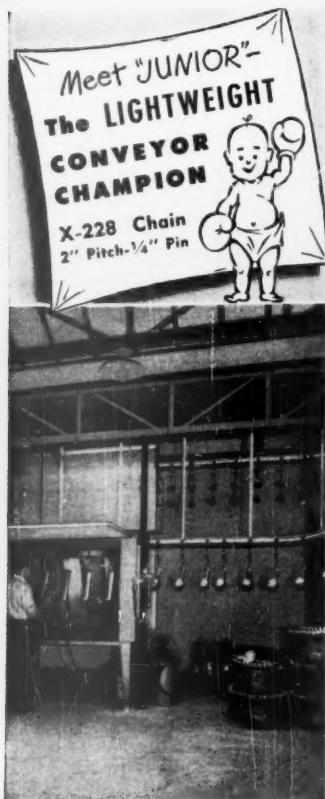
Please send me a reprint of the jury's report, "We Tested the Tape Recorders" and name of nearest dealer who will arrange a demonstration in my office without obligation.

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ORGANIZATION.....

ADDRESS.....

CITY..... STATE.....



Built from knowledge gained in 30 years of conveyor manufacturing . . . "Junior" is the champion for light loads. It is low in first cost—low in operating and maintenance cost. Bolted track hanger construction permits erection by your own shop crew.

Chain is Keystone X-228, drop-forged of high carbon steel. Trolley brackets are drop-forged steel; wheels have antifriction ball bearings. Track is 3" Junior I Beam. Caterpillar or sprocket drives are available. Here's the conveyor to cut costs in small parts manufacture.

WRITE FOR LITERATURE

JERVIS B. WEBB COMPANY
DETROIT 4, MICH.
CONVEYOR ENGINEERS AND MANUFACTURERS

AVIATION



EXPERIMENTAL GUIDED MISSILES, like Gorgon IV, reach the point where . . .

Missiles Go Into Production

Air Force prepares contracts for \$54-million worth for training purposes. Airframe manufacturers to get prime contracts; makers of powerplants and guidance devices will be subcontractors.

The aircraft industry is getting ready to take its first crack at quantity output of guided missiles.

• **Testing**—For three years, the industry has been fiddling with missile research, building small numbers of hand-tailored test missiles (among them: Martin's Viking, Douglas' WAC Corporal, Convair's J44).

This week, the Air Force was drawing up \$54-million worth of contracts for actual production of missiles.

The infant missile industry will have three parts:

Airframe manufacturers. These have been picked as the prime contractors, at least temporarily. They will get the jobs of making missile shells, and of final assembly and packaging.

Among the most likely recipients of contracts: Bell Aircraft Corp.; Boeing Airplane Co.; Consolidated Vultee Aircraft Corp.; Douglas Aircraft Co.; North American Aviation, Inc.; and Northrop Aircraft, Inc.

Powerplant manufacturers. Some of these are old-line firms—including Curtiss-Wright Corp. and North American. But they are mostly war babies, which have grown up with the missile business and postwar aircraft development.

Among these: Marquardt Aircraft Co. and Aerojet Engineering Corp. (both subsidiaries of General Tire & Rubber Co.); G. M. Giannini & Co.; and Reaction Motors, Inc.

The rocket motor will probably be the standard missile powerplant—although some development is still being done on turbojet- and ramjet-powered missiles. Main reason: Both turbojets and ramjets need a lot of air for proper operation; this limits them to altitudes of less than 70,000 ft. Rockets, however, carry their own oxygen, so they can function beyond the earth's atmosphere.

Guidance-device makers. Among the makers of equipment to steer the missiles to their targets are established electronic manufacturers, such as General Electric Co., Raytheon Mfg. Co., and Hazeltine Electronics Corp., and some newcomers, including Hughes Aircraft Co. (division of Hughes Tool Co.).

• **Subcontractors**—Under present missile plans, both powerplant and guidance manufacturers will be subcontractors to the airframe companies.

This is the first decision in what, up to now, has been a bitter battle among the three groups of companies for "control" of the missile program. One big

reason why it turned out as it did: The contracts are being awarded by the Air Force, which naturally favors the airframe industry. Neither the Army nor the Navy consider that their missile programs are ready yet to step out of the pure-development stage into limited production.

• **Continuing**—But the struggle among Air Force, Army, and Naval air and ordnance for control of various types of missiles is still going on. For example, both Air Force and Army want control of ground-to-air missiles.

As umpire in this dispute, the Military Establishment has appointed Dr. Clark Millikan, University of Chicago aeronautics professor, to head a Guided Missile Committee of the Research & Development Board. His job: to straighten out the missile muddle, eliminate interservice duplication, get rid of jurisdictional rows.

• **Training**—The first production missiles will all be used to train launching crews and technicians. These men will form guided-missile groups, which are scheduled to take their place in the Air Force soon alongside fighter and bomber groups.

Training missiles (like all others) are one-shot jobs. So this training program is likely to be expensive.

• **Changes**—The airframe manufacturers that take part in the missile program are in for some radical revisions in both the scale and the techniques of their production. Making missile shells, and packaging powerplants and guidance devices, are far simpler jobs than making airplanes—and they require a far higher rate of production than anything the airframe industry dreamed about even in its most hectic wartime days.

AVIATION BRIEFS

Northwest Airlines will probably get an RFC guarantee—with CAB blessing—on a \$12-billion bank loan to buy 10 Boeing Stratocruisers. The money would come from a group of 12 private banks.

Pan American and Panagra last week started a joint tourist-class service all the way around South America. Twice-a-week tourist flights between Miami and Buenos Aires via the West Coast of South America have been added to Pan Am's existing tourist service via the East Coast.

Minimum wage on government aircraft contracts may go to 95¢ an hour soon. It's now 50¢. Bureau of Labor Statistics has called hearings on the subject for next month; it says that less than $\frac{1}{2}$ of 1% of the 165,000 aircraft workers covered by the Walsh-Healey act make less than 95¢ an hour now.



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- (1) Prompt attention to your orders;
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And this guide gives you specific data on the composition, potential physical properties and recommended heat treatment temperatures to help you get the maximum performance from the U-S-S Carilloy Steels we supply on your orders.

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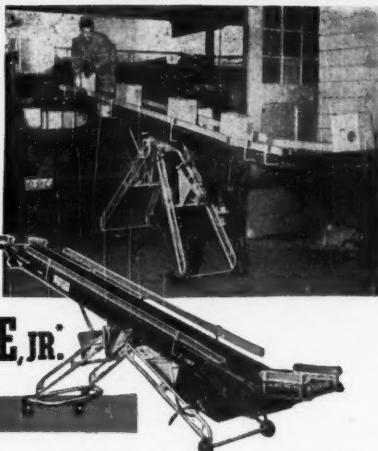
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UNITED STATES STEEL

READERS REPORT:

**SAVE
\$5,000
A YEAR
with
STEVEDORE, JR.**



Stevedore, Jr. power belt conveyor saves manpower! Rapistan case histories show that the average saving in handling materials with one Stevedore, Jr. (loading, unloading, stacking, etc.) is equal to the work of three men. Often that means a payroll saving of more than \$5000 a year! More than 10 times the cost of a Stevedore, Jr.

→ Here are some typical examples: Five men used to take ten hours to unload a boxcar. With Stevedore, Jr. belt conveyor, two men unload in little more than four hours, saving five-sixths of the manpower! Where four men needed two hours to load rugs in a truck, Stevedore, Jr. helps them load in half an hour—just one-fourth of the former time! By reducing handling time to an absolute minimum, Stevedore, Jr. makes it possible for a smaller crew to handle a larger volume of work in less time, with less effort.

Stevedore, Jr. conveyor is just one of many Rapistan Material Flow gravity and power conveyor products specially designed to help you eliminate unnecessary manpower... and to move materials with maximum efficiency.

Needless handling eats profits! Cut your manpower costs! Install Rapistan material flow equipment.

Whether you need a short-length gravity conveyor or a complete inter-floor system, Rapistan equipment will solve your problem. Rapistan equipment is low in cost, easy to install. It quickly pays for itself and continues to make profits for you indefinitely.

THE RAPIDS-STANDARD COMPANY, INC.
25 Rapistan Building Grand Rapids 2, Mich.



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MANPOWER SAVINGS!
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"Rapistan Material Flow at Work"
Valuable facts on Stevedores, Jr.
and other Rapistan conveyor
for every type of business

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Manufacturers of

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MATERIAL flow EQUIPMENT

Representatives in all Principal Cities



CONVEYORS: POWER OR GRAVITY • PORTABLE OR STATIONARY

Merit Rating in R. I.

Sirs:

We find it necessary to correct your errors with respect to merit rating in Rhode Island [BW—May 28'49,p105]. Merit rating will not be junked July 1, 1949, in this state. On Apr. 1, 1949, the reserve ratio was less than 8%; therefore all employers would be required to pay a tax rate of 2.7%, effective July 1, 1949. However, the General Assembly amended the act in April, 1949, providing for a tax rate ranging from 2.1% to 2.6% based upon the reserve ratio of less than 8% for the period beginning July 1, 1949, and ending Dec. 31, 1949. During this six-months' period, a study will be made in connection with the adequacy of the current tax rates. The results of this study will determine the rates to be in effect on and after Jan. 1, 1950.

DEPT. OF EMPLOYMENT SECURITY
PROVIDENCE, R. I.

• We caught our own error after only a few thousand copies were off the press. Unfortunately, our Rhode Island friends received the early copies.

Monroe's Sales Argument

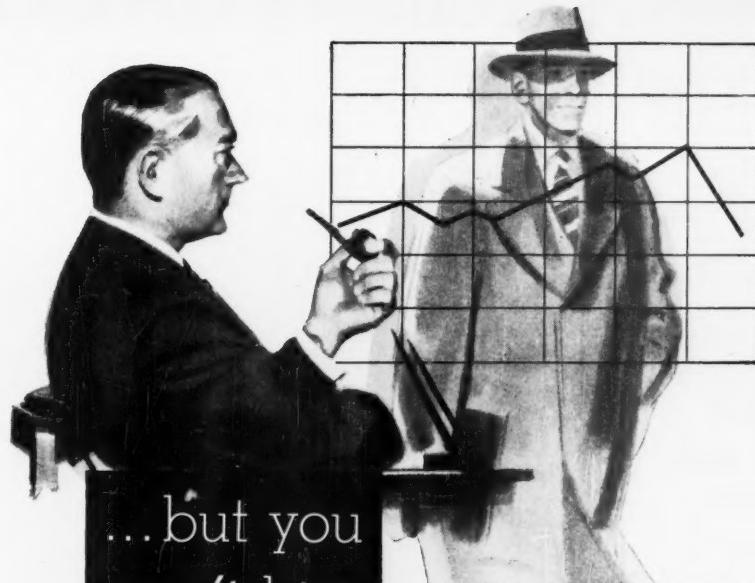
Sirs:

We should like to clarify a detail or two of your otherwise excellent article, "Revolutionizing the Office" [BW—May 28'49,p65]. Monroe Calculating Machine Co.'s "strongest sales argument" is not "the danger of overmechanization." If we were to name a strongest sales argument it would be that our complete line of office machines (adding, calculating, and accounting) and our range of models within each category uniquely qualify Monroe to provide the precise machine for anybody's needs.

And to restore our salesmen to benignancy will you please make clear that in saying that the "hand system" is still the most widely used for accounting jobs like payrolls because it is more reliable, we mean automatic electric machines receiving stimulus from the hand of an operator, not pen and ink methods?

E. H. TIFFANY, JR.
MONROE CALCULATING MACHINE CO.,
ORANGE, N. J.

• When BUSINESS WEEK referred to "hand methods" in its report on the extreme mechanization which is invading the office, it of course had no eye-shaded scrivener with a quill in mind; it was contrasting individually operated machines with the completely automatic punchcard systems.



...but you
can't hire
a dream!

• Maybe that hard-hitting salesman of 1939 seems like a dream today—a dream you'd like to hire to meet the buyers' market.

But don't worry about him. The salesman of today is just as good, if you give him the necessary selling helps in time to do the job. Sales letters, direct mail, sales presentations, contest literature—these and countless other copies of duplicated material will be needed . . . fast!

Speedy production of these thousands of copies can be yours with A. B. Dick mimeographs. And with this speed you will still get full measure of legibility, over-all economy, easy operation, and versatility. For mimeographing is **BALANCED** duplicating.

Send in the coupon below, or call your nearby A. B. Dick distributor for full details on how to meet your sales challenge with A. B. Dick mimeographs. For use with all makes of suitable stencil duplicating products.

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MODEL 435

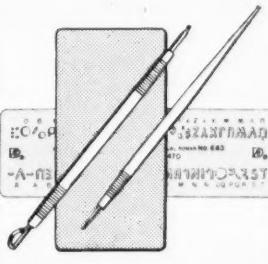
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Model 27 stand with foot control illustrated.



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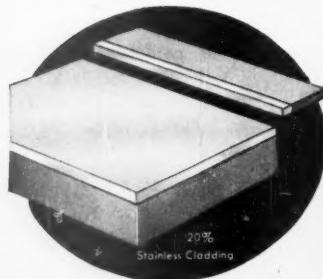


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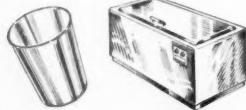
PERMACLAD STAINLESS CLAD STEEL



AND SEE HOW MUCH YOU CAN SAVE

You save money, improve your products and increase sales when you fabricate your products from PERMACLAD. It's an entirely new and different material with the surface characteristics of Stainless steel and the excellent forming qualities of Carbon steel.

Corrosion Resistant! Easily Formed!
It's corrosion resistant and has better ductility than other material of equal corrosion resistance. Shower stalls, deep freeze units, automotive trim, food and chemical vessels and many other products are now being made of PERMACLAD. Profit by getting the facts about PERMACLAD now. Write for free folder, Alan Wood Steel Company, Conshohocken, Pa., Dept. P-21.



The finer the finish the finer the product
USE

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Other Products—

AW Super Grip, Abrasive Floor
Plate • AW Super-Diamond Floor
Plate • Billets • Plates • Sheets
(Alloy and Special Grades)



EXECUTIVE OPINION



William Roberts of Allis-Chalmers knows farm mechanization. His approach:

"The Tractor is a Basic Machine"

Roberts of Allis-Chalmers sees replacement demand for farm machinery greater than total prewar sales, a second round of mechanization, continued family farming.

One of the great industrial developments since the war has been the swift mechanization of agriculture. Riding on a booming income, with materials available for machinery for the first time in five years, farmers have grabbed at mechanized equipment as never before. The resulting productivity has fed the hungry postwar world, may be piling up surplus trouble for the future.

What will happen to the farm-equipment boom now that farm prices and income are sliding off?

William A. Roberts ought to know. He heads up the farm-equipment side of Allis-Chalmers Mfg. Co. Gesturing chopily with gold-rimmed glasses, a shock of greying hair falling over his bulging, intellectual forehead, Roberts told BUSINESS WEEK in a friendly, rasping voice that there's still a lot of mechanization ahead. The conversation was electronically recorded.

BW: According to the experts, farm income is going to be down this year and maybe a little farther down next year. How much, on your analysis here, are you looking for it to go down?

ROBERTS: Well, total farm production last year, the calendar year 1948, represented a little over \$30-billion . . . total farm production—that's not net income. I would guess that that might drop down as low this year as \$25-billion . . .

BW: About a 15% drop?

ROBERTS: Well . . . 15% would probably be the maximum . . .

BW: Would you look for the market, say for farm machinery . . . are you looking for that market to drop proportionately, or to some lesser extent?

ROBERTS: I doubt that farm machinery sales will drop 15% for the calendar or fiscal year of most of the farm machinery companies. I'm pretty sure that . . . for the calendar year of 1949

THE SAFETY DEVICE THAT "LETS YOU SLEEP NIGHTS"

MICROTRIP control

makes fast power press operation

easy and safe !

Because it must be operated by both hands, MICROTRIP safety control greatly reduces the constant threat of serious accidents to those who operate your power presses.

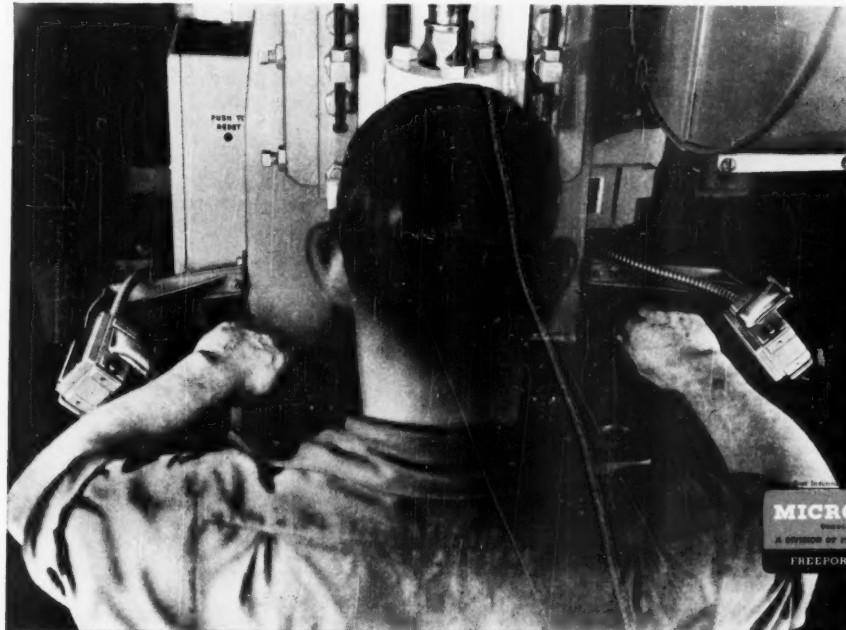
Because of its light-touch actuation, its instant electrical response, MICROTRIP control actually speeds up your power press operations as it removes the danger of injury!

MICROTRIP control is safe and sure. Both hands must touch the actuating plates at the same time or the press will not operate. Failure to do so opens the

control circuit and further operation requires a button on the control box to be manually reset.

MICROTRIP control is a simple, clean-cut device which is easily and quickly installed on present equipment. In a matter of minutes, and at small expense, it removes the danger of permanent disability from your hard-to-guard power presses.

Ask your safety engineer about MICROTRIP safety control. It can save employees from injury and increase your production. It will "let you sleep nights." MICRO SWITCH branch offices in principal cities.



MICRO SWITCH
A DIVISION OF FIRST INDUSTRIAL CORPORATION

FREEPORT, ILLINOIS U.S.A.

Tip-Offs that Pay Off



The Blade-of-Grass Test

One of the greatest outfielders in the history of baseball used to throw a blade of grass into the air every time he went to his position. Why? Easy! . . . he was smart. Winds in a ball park are tricky and to test the wind with a blade of grass meant catching balls, winning games, a pennant, the series, and *more dough* . . . a subject dear to a ballplayer's heart.



The Who's-Listening-To-What Test

"How's your Hooper" is the popular greeting with radio entertainers. That is, it's popular if the Hooper is good . . . for the Hooper is a test of a program's popularity determined by thousands of phone calls throughout the day asking people in homes "What program are you listening to?" Naturally, a good Hooper pays off.



The Down-To-Earth Test

Warning! Before you buy that little farm . . . that place to get away from it all . . . be sure to have the soil thoroughly tested. It will save you plenty of headaches.



The How-Many-Feet-in-a-Gallon Test

Here's the tip-off that pays off on paints. When considering paints for the interior of a building, *forget about the cost per gallon*. It doesn't mean a thing. The real factors to consider are the number of square feet of proper coverage you get per gallon and . . . because labor represents 80% of your total cost . . . *the time involved for painting*.

See for yourself. Compare a gallon of any paint you want with a gallon of Barreled Sunlight. Thin them both according to directions. Put them on a wall. Check the number of square feet each covers. Check the length of painting time for each. Note the difference in appearance after drying. You'll be thoroughly convinced that Barreled Sunlight . . . even though it costs more per gallon . . . will give you a better-looking, long-lasting paint job *for less money* than any other paint.

It will pay you to talk with your nearest Barreled Sunlight representative. Write, and he'll call.

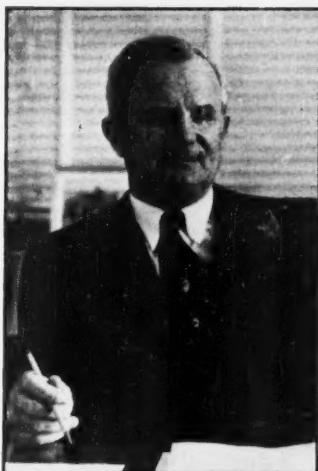
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"Don't ever quote me as talking about a small farm."

or the fiscal year beginning Nov. 1, 1948 . . . that there will not be a corresponding drop in farm machinery sales . . .

BW: The income drop of this crop year would begin to show up in sales the year after that?

ROBERTS: The income drop this year will begin to show up in sales about this fall. So next year I would say that the pressure market will be gone . . .

BW: What do you mean by the pressure market?

ROBERTS: Well, we ought to be out of the period when any farmer would feel that he could afford to pay more than the manufacturer's list price . . . some people call it the black market. There's still some of that. However, we're rapidly coming into the complete buyer's market, and I think we will have arrived at that point before the end of this year.

BW: What sort of market does that leave you?

ROBERTS: You have to remember that there has been a great deal of technological . . . or whatever word you want to use . . . progress in the last twenty years . . . since the 30's. If we had to farm now with the farm machines of 1925 we could not . . . with our present manpower available . . . could not produce the crops we're producing now.

BW: Are farmers now using a lot of machinery which is obsolete?

ROBERTS: If you'll just give me a chance, that's what I'm trying to develop for you. The farmer has not been able to take full advantage of that technological progress. In the 1930's he was on the rocks.

BW: Looked in the dealer's window and his mouth watered . . .

ROBERTS: Right. Then comes the

war, and after he had begun to get a good income he was unable to buy because materials weren't available. For twenty years, almost, the farmer has been starved, if you want to use that word.

BW: So it's really been only about four years of rapid mechanization . . .

ROBERTS: Just now . . . just in the last year let us say . . . has he been able to buy and get delivery in bulk. There is still a backlog of need for modern machines on the farm that has not been satisfied. For instance, less than 60% of our farms that have tractors now.

BW: You say 60%, sir. Does that 60% include all the little subsistence farms?

ROBERTS: Yes, those fellows are independent businessmen.

BW: Are they people who are capable of operating a highly capitalized business such as a mechanized farm . . .

ROBERTS: No question about that at all. If we build the machines, if we can design and build a machine of the type, of the size, that fits their needs, they can operate it. And we've got to do that . . . that's the responsibility of the farm-machinery industry.

BW: I suppose the large farms would be pretty well mechanized already . . .

ROBERTS: I know that, but . . . for instance, the planting of corn in the state of Iowa last year was more than half done by horses. Iowa has an average of more than one tractor per farm . . . the highest percentage of tractors per farm of any state in the union.

All right. Now that means this . . . that we have taken care of the heavier jobs on the farm. But these small tractors that are coming into production now . . . and I shall put our Model G at the head of the list, of course . . . are much more ideal for corn planting and light surface work. In the past, it didn't pay to crank up a two-plow tractor to pull a two-row corn planter or even a four-row corn planter . . .

BW: He did his plowing with tractors . . .

ROBERTS: Oh yes, he did his plowing, cultivating, his heavy work with tractors but he did his planting . . .

BW: So the light tractor is not so much a tractor for the small farm as . . .

ROBERTS: There is no such thing as a small farm. Our Model G tractor . . . our description of that tractor is that it is the tractor for some jobs on all farms and all jobs on some farms.

BW: That is, if you have a small farm, you can do the . . .

ROBERTS: We don't have any small farms. Don't ever quote me as talking about a small farm. I'm very touchy about that. I feel that our way of life requires of us to let the other fellow measure himself in his own way.

BW: Maybe you won't like this next question. You've been talking about

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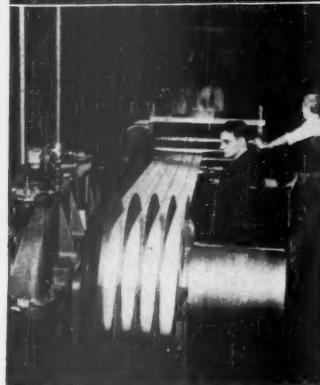
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how this industry . . . farming . . . in the course of the last few years . . . has been tremendously mechanized. What does that do to the idea of the family-size farm?

ROBERTS: I touched on that a moment ago when I said that it's the responsibility of the farm-machinery industry to build machinery that will fit the need of every individual farm. We don't want to put any farmer out of business. We want to build up the family farm . . . whatever that may be.

BW: I can see that you would, of course—from a social point of view and because you want to sell as many customers as possible. But it leaves the question . . . does the big hired-hand farm tend to gain more, relatively, when it mechanizes than the family farm does?

ROBERTS: Absolutely not. If a man is operating a farm himself . . . I would think if there is any advantage gained, it would be for him, over the larger farm.

There just isn't any argument about it at all. If we're going to compete with . . . if the individual farm . . . family farm . . . operator is to compete with the big farmer, he must mechanize. He can't compete any other way . . . just can't do it.

BW: You seem to have, on the one hand, a large market for the still-unmechanized farm and then you've got a sort of second round of mechanization on the farms which have got their first tractor . . .

ROBERTS: You have it . . . that's right. In the next ten years there will be a substantial second-round market, as you term it, for a small tractor to go on the farms that are already doing their heavy work with tractors.

BW: Then, as I understand it, with each tractor there goes a whole family of related equipment.

ROBERTS: That's right. Now harvesting equipment, particularly in the hay field, is coming into more prominence. For a long time, for many years, we didn't do very much about mechanizing the harvesting of hay. This is one of the most back-breaking labor jobs on the farm . . . now the demand for hay machinery is probably the greatest of any in the harvesting line . . .

Let us say that we have 3.5-million farm tractors on farms now. I don't know . . . that's a close enough figure. I would think that the replacement market alone would be 10%; I would think that in almost any year when we didn't have a panic, a depression, that you could expect to sell 350,000 tractors for replacements alone. That is more tractors than we sold in any but the very best years before the war.

BW: How many does the industry put out now?

ROBERTS: They put out about half



"Contract farming . . . that's something that's dangerous"

a million last year . . . farm tractors . . . in 1948, and I suspect there will be about that many this year.

BW: What about this business of contract work on farms . . . the harvesting crew that works on contract . . . the plowing crew that works on contract? Is that going to be an increasing tendency, or will the farmer want his own machinery?

ROBERTS: The farmer will want his own machinery. You know, all through this discussion you have been trying to get me to say that the farmer does this and the farmer does that . . . The farmer is the greatest individualist in the world. He does not want to hire somebody else to come in to do his work if he can equip himself to do it himself. Our responsibility is to build machinery that will prevent the forcing of the individual farmer to be dependent on somebody else.

In the past it was true that we depended on neighborhood or custom harvesting. Well, we don't want to do that now. There is one day, there is one hour . . . in the year . . . when, if I can get my work done on the farm, I'll get the best returns from it. If I control the means of getting that work done . . . I can do it at that hour.

BW: On the other hand, isn't there something uneconomical . . . on the face of it at any rate . . . in a man owning all year a piece of machinery that maybe he can only get use out of for a few weeks during the year?

ROBERTS: That is a theoretical fallacy. Use the tractor every day in the year . . . any farm will use a tractor almost the entire year round for some job. The tractor is a basic machine. Then what are you going to collectivize on—harvesting machinery? What do we

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So that theory about contract farming just doesn't work at all. It just isn't in the cards. Who the devil is going to contract to milk your cows for you? Nobody. We have got to build machines that are so adaptable . . .

BW: How do you mean, adaptable?

ROBERTS: I am not interested in self-propelled machines, for instance. A self-propelled machine implies . . . now don't get this wrong, because everybody else in the industry thinks differently from me, I guess . . . but I don't believe in building an engine into a machine . . . and then have the engine used two or three days in the year or two or three weeks or even two or three months. I want to use the tractor engine, the power take-off principle. I absolutely fought teeth and toenail around here until we established the principle that the tractor that pulled the machine could operate it. We wouldn't sell an engine to operate the machine until we had established that principle. Now we have 250,000 of those machines out . . . and if somebody insists on buying an engine, all right.

BW: You cut the total investment.

ROBERTS: Exactly. When you ask about contract farming . . . that's something that's dangerous. It should not even be given serious thought. I think what I've been saying establishes that point pretty definitely.

BW: You ground it in pretty firm.

ROBERTS: I'm a little surprised . . . I thought perhaps you would be asking me about the Brannan Plan. I am glad you didn't, because it is very nebulous right now. All I'm convinced of is that we will have a farm plan . . . I don't know what it's going to be.

BW: One way or another, farming does seem to be becoming a kind of halfway-controlled sector of business. Maybe that makes it more stable, from the point of view of people selling to it?

ROBERTS: No, we're not the regimentation type at all. But I cheered just as loudly as anybody did back in the twenties when they were vetoing those farm bills . . . and I came damn near starving to death like everybody else in the thirties . . . early thirties . . . when the farmer went to pot. It is my theory that you can multiply farm income and get national income . . . farm income is the basis of all our national income. I think we should all realize that many of our raw materials, practically all of our foods, come from the farm . . . that what we do is merely trade with something that somebody else has already produced.

BUSINESS WEEK REPORTS TO EXECUTIVES ON-

MARSHALL PLAN DILEMMA

Will ERP Be a Political Success but an Economic Failure?

Can Western Europe Get Back to Competitive Trade?

Will-Aid Program Shrink U.S. Markets in Europe?

Is the Dollar Shortage Europe's or America's Problem?



Marshall Plan Dilemma

The Marshall Plan was a bold and daring venture for the United States to undertake. But the American people, by and large, bought the idea readily. To them, bolstering western Europe with a four-year aid program seemed to make sense. It looked like the surest way to guard the political and economic unity of the democratic world.

Today, after 15 months of the program, the two-way objective still looks good. But a careful, searching analysis of the plan itself and what it is supposed to do and what it has done so far raises doubts. You begin to wonder: Can the Marshall Plan turn the trick?

It is not the political success of the program that is in question. Few would argue with Paul Hoffman's claim that U.S. aid has checked Soviet Communism in Europe and kept the West's unity intact.

The doubts arise about the lack of progress toward the economic goal. That goal, after all, was not merely to save Europe from starvation. Nor was it limited to getting the volume of production above prewar levels. If there was to be economic unity in the West, Europe would have to be put in shape to stand on its own feet in a multilateral trading system where currencies would be convertible and trade would be on a competitive basis. The markets of Europe and America would then be at least as open to exports from each other as they had been prewar.

It is from this angle that the Marshall Plan seems to be bogging down.

A POCKETBOOK PROBLEM

The economic problem of western Europe is both complex and simple. It is a simple problem of not having enough dollars—or other spendable money—for what it needs and wants. It is a complex problem because it seems to demand a solution with as many components as an automobile to be assembled by a man with no tools.

Getting Europe into a position to pay for essential imports from the outside world is not a problem that must be solved today—or there will be no imports tomorrow. ECA is still financing about half of these, including roughly three-quarters of the imports from the U.S. This is according to plan. Not so the recent slump in western Europe's exports to the U.S. These were lower in the first quarter of 1949 than the last quarter of 1948. They dropped still lower in April and May. And a further recession in U.S. economic activity could send them down still further.

There's no simple way to cut through the problem of how Europe is to pay for its imports. The trouble lies in currency and trade bottlenecks as much as low productive

efficiency in Europe. And the U.S. trade balance as well as western Europe's is involved.

The whole structure of Europe's foreign trade was knocked out of whack by World War II. Especially serious was the loss of "invisible" exports, i.e. earnings from shipping, insurance, overseas investments, etc. "Invisibles" brought Europe a \$2-billion income prewar and paid for about 30% of all imports from the outside world (chart, page 49). They helped cover the \$750-million deficit in trade with the U.S. By contrast Europe in 1947 had no invisible income net. In fact, it was paying out about \$800-million on invisible account.

To make up for this loss Europe has to export a lot more than prewar. But its exports are largely manufactures (the estimate for 1952-53 is 80% to 90%), and to boost these requires higher imports of raw materials. So an export increase of \$2-billion would not reduce a deficit by that amount as \$2-billion in invisibles would.

The pattern of intra-European trade has been upset, too. Prewar, London's invisible income helped finance a \$500-million British import surplus from continental Europe. Now Britain has become a net exporter to the Continent.

Thus, western Europe's economy needed a thorough postwar remodeling if it were to produce enough exports at competitive price to pay for its imports.

The blue prints drawn by ECA and the Organization for European Economic Cooperation called for integration of the national economies. A bigger internal market might make production efficient enough so that western Europe could match the U.S. in world markets.

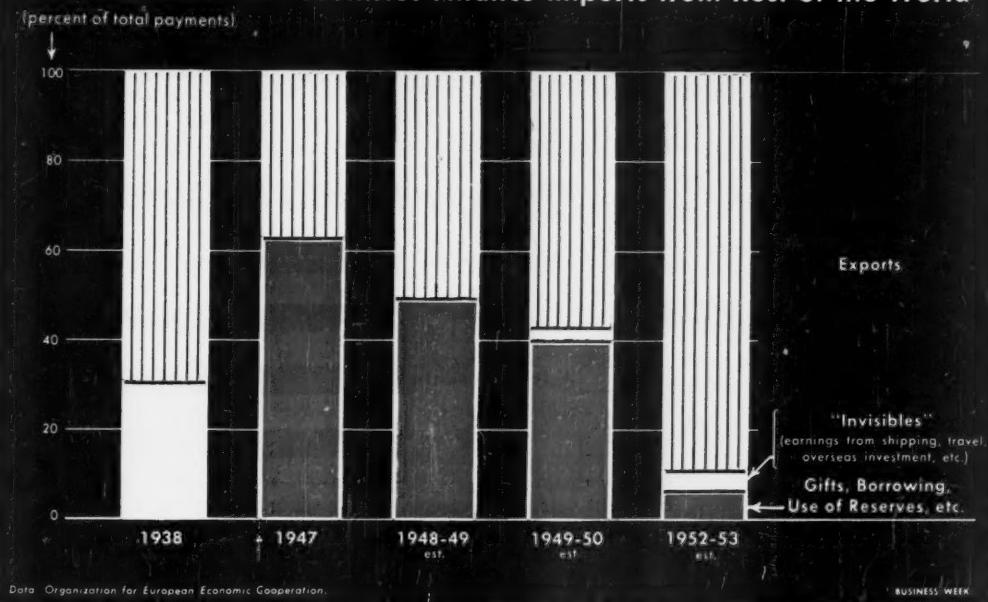
But Europe's economy today is less united than it was in the 30's. It is split into even tighter national units, each driving more desperately than prewar for self-sufficiency. The drive is apparent not only in currency and trade controls but in the duplication, country by country, of new investments in heavy industry.

The social revolution in Europe has tended to encourage this development. The chief goal of western Europe's welfare states, and most of them fall in this class, is economic security. This emphasis on welfare economics has probably contributed to the political success of the Marshall Plan. But it has reinforced the trend toward planned trade and self-sufficiency and thereby slowed progress toward the economic goal.

But lack of economic unity in Europe is not the only thing that stands in the way of bringing Europe back into the kind of world economy the U.S. wants. Perhaps as important is the growing imbalance between exports and imports in our own trade.

Prewar the U.S. bought more than it sold in several important areas of the world (chart, page 50). Europe sold more than it bought in some of the same spots, and

How Marshall Plan Countries Finance Imports from Rest of the World



thus acquired dollars to spend in the U. S. It was these dollars, plus income from invisibles and sales of gold, that balanced U.S.-European trade in the '30's.

In 1948 the U. S. had an export surplus with almost every country in the world (Malaya was the only important exception). And so long as our export surplus remains worldwide in character, there's no possibility of restoring multilateral trade and convertible currencies. In other words, if the U. S. export surplus is still as universal in 1952, and aid has stopped, the value of Europe's imports from the U. S. can't be more than the amount Europe earns from its sales to us. There will be no dollars for Europe to pick up in third markets as there were prewar, simply because the U. S. will be selling at least as much in these third markets as it buys.

This prospect is one of the things that has led the Marshall Plan countries to plan for maximum possible cuts in imports from the U. S. and development of substitute production within Europe or in other non-dollar areas.

- How the U. S. comes off in all this has been put frankly in the latest report of the Economic Commission for Europe:

"The United States is in the strange position of financing a program which is directed largely toward the reduction of its own exports. It faces the anomalous prospect that, by the end of the program it will have surpluses and excess production capacity in commodities for which it has helped (directly or indirectly) to develop substitute sources of supply elsewhere; its own exports to Europe will be reduced below the depression-shrunk volume of 1938; and Europe nevertheless will still be

short of dollars to cover its imports from the United States."

RECOVERY—ON TIME

Under the stimulus of U. S. aid, Europe's industrial recovery has been on schedule. Not only did 1948 production get back to prewar but most of the Marshall Plan nations made good their capital investment programs. In Britain, France, Denmark, Norway, and Sweden actual investment in 1948 exceeded the targets by from 1% to 7%. The rate of net investment in Britain and France was pushed up from 9% (1947) to 11% of national income.

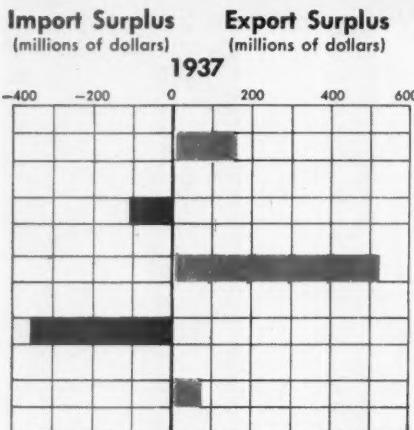
This record suggests that western Europe should be able to reach its 1952 output goals—130% of prewar for industrial production, and 115% in agriculture, for a combined product of \$170-billion to \$180-billion.

But figures like these hide the trend toward autarchy or national self-sufficiency that has developed since World War II.

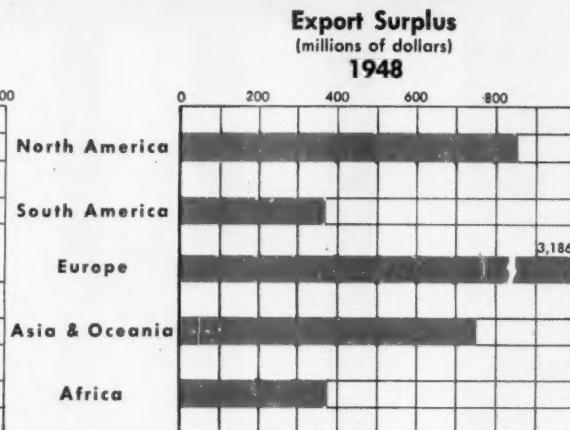
The pattern of investment plans for 1948–52 is almost identical in each of the highly industrialized countries of western Europe (excluding Germany, of course). In each, actual and planned investment is high in steel, machinery, chemicals, petroleum products (table, page 51). There are few signs of the international specialization which was supposed to make better use of Europe's resources.

This means, of course, that the much-heralded growth of economic cooperation in western Europe amounts to very little. The one field where cooperation in OEEC

How U. S. Trade Balance Has Shifted



Data: Dept. of Commerce.



BUSINESS WEEK

was expected to pay off soon was in the integration of new investments. But what little integration there has been to date is where U. S. funds are involved. In these cases ECA can put its foot down.

Apart from welfare economics, two things seem largely responsible for the trend toward autarchy: (1) the aim to reduce dependence on dollar imports; (2) the desire of other OEEC countries to replace Germany as a producer. (Intra-European trade is already taking a shape which is largely independent of the role Germany formerly played. Yet German exports of these same goods are supposed to go up to twelve times the 1948 level of Germany's foreign sales.)

Even without these two pressures, integration of investment by OEEC was bound to fail—unless the U. S. had been determined to make a super-socialist planning body out of OEEC. For integration to work, it would have been necessary to get: (1) authority in OEEC to tell member governments what they could and could not do; (2) government power in other countries equal to that in Britain so private industry could be told what it could and could not do.

As things really are, OEEC's industry committees have to work on the basis of compromise. This usually means that all major projects get approval. It's almost a question of each country saying to the others: Unless you scratch my back, I won't scratch yours.

A projected French strip-mill was recently before OEEC's steel committee. Belgium and Luxembourg opposed it on the grounds that it would create excess capacity in flat-rolled products. But the French project has either been approved or will be soon. If the Belgians and Luxembourgers carried their opposition to the limit, they might find the French holding up a pet project of theirs, say, in OEEC's petroleum committee.

This is not to say that there's no useful work done by

OEEC in the industrial field. With the help of ECA officials in Paris, OEEC has convinced Norway to drop its plans for steel production, concentrate instead on aluminum. Producing steel in Norway would inevitably be uneconomic, while aluminum based on Norway's cheap power resources could be the most economical in Europe. Knowledge of this decision, in turn, may lead to a completely voluntary cutback by France in its plans for production of aluminum.

At the level of industrial information, OEEC is actually doing valuable work. Governments and businessmen in each country now know, as they did not prewar, what expansion is being planned in basic industries throughout western Europe. Here's a case where full information is worth while: As a result of its investigations, OEEC's coal committee knows that certain types of coal used prewar for thermal power stations will no longer be available from, say, Britain or Germany. Italy knows, therefore, that it has to put a certain type of coal-burning equipment in any new thermal plants.

A SINGLE MARKET

As things stand now, freer trade in Europe is the only thing that would check the trend to self-sufficiency and make talk of integration add up to something in practice. Ideally, there would be one European market as there is one American market. Then industries would tend to concentrate where production can be carried out most efficiently.

But a single European market isn't in the cards for the next ten years at least. The real issue is whether Europe can rid itself of the trade bars which have grown up during and since World War II. A return to the relative freedom of the inter-war years would be real progress.

The bars that do the most to check a normal flow of

trade are quantitative in nature, i.e., import quotas which limit a country's intake of, say, autos to 1,000 a year; or exchange controls which forbid the use of foreign currencies to buy nonessentials.

Tariffs slow down the movement of trade but businessmen can always get around them by price competition if they are kept stable and not too high. There's no way to get by quantitative restrictions.

Western Europe's quantitative restrictions have been set up in the main to protect each country's reserves of gold and foreign exchange. Up to now they have probably been necessary. They were especially important while the Marshall Plan countries individually were getting their production for domestic consumption back to prewar levels. And so far they have not operated widely as devices for protection of inefficient industries. If they are not removed soon, however, that's how they are sure to be used.

The straitjacket on Europe's trade is one of the things that ECA is tackling this summer. Averell Harriman, ECA's European chief, has had the heat on the Marshall Plan countries since the middle of May.

Harriman isn't thinking only of the problem of getting new investments made where they will be most economical. He's also concerned about: (1) increasing the volume of trade within western Europe; and (2) using

competition to bring down the prices of Europe's exports, thus making them more attractive in world markets.

But knocking down trade bars has always been a tough job. It is especially tough in western Europe today. Currencies are artificially pegged and, for the most part, convertible. Therefore, the tendency is toward bilateral deals, for two countries to try for an even balance in their trade with each other.

Of course an even balance is not possible in every case and gold is used to settle the account. Thus, a general lowering of the bars would mean that some countries would lose gold. For example, London had to pay Brussels \$120-million in gold to cover Britain's 1948 trade deficit with Belgium. Since every country's gold reserves (except, perhaps, Switzerland's) are at rock-bottom level, up to now most OEEC countries have balked at the thought of lifting the bars to allow in more imports.

So the most that's likely to happen is that the bars will come down as between European creditors and debtors. Britain, for example, will drop some restrictions on stuff from France and the Netherlands but not on imports from Belgium. This would step up trade a little without threatening London's gold reserves. Or, as an alternative, the bars might come down only on certain products, regardless of country of origin.

ECA has still another line of attack on Europe's

Europeans Aim at Self-Contained Economies by 1952-53

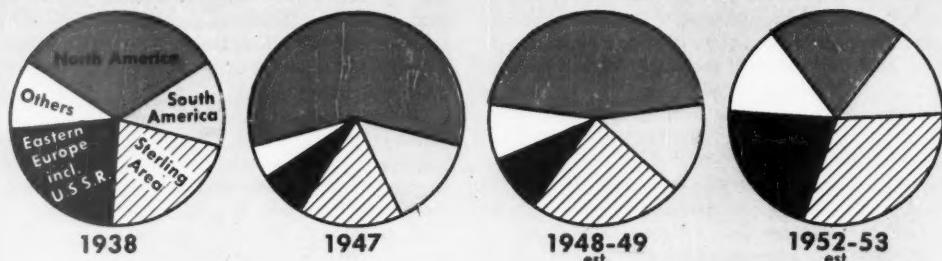
		Belux	France	Germany: U.K.-U.S. Zone	Italy	Sweden	Britain	Other	Total
Cool	millions of tons	44.0	75.0	127.8	2.1	—	257.0	—	505.9
	as a percent of 1938	102	161	94	140	—	111	—	111
Petroleum Products	thousands of tons	5,499	13,330	2,475	8,785	1,400	16,777	—	48,266
	as a percent of 1938	683	278	159	1,305	3,043	658	—	463
Electric Power	millions of kwh	18.7	41.8	38.6	32.8	23.6	55.0	37.5	248.0
	as a percent of 1938	213	222	140	213	288	225	179	200
Basic Steel	millions of tons	8.7	14.5	10.7	3.0	2.0	17.0	1.2	57.1
	as a percent of 1938	174	159	73	136	200	149	171	130
Rolled Steel	millions of tons	7.2	10.7	7.7	2.4	1.4	13.1	1.5	44.0
	as a percent of 1938	189	181	74	141	200	156	136	138
Aluminum	thousands of tons	—	105.0	50.0	45.0	4.0	36.0	141.0	391.0
	as a percent of 1938	—	327	138	230	200	196	199	210
Machinery & Equipment	millions of dollars at 1948 prices	1,202	2,800	2,463	1,390	—	4,600	225	12,685
	as a percent of 1938	178	164	104	160	—	163	136	147
Machine Tools	millions of dollars	41	90	96	120	24	160	58	589
	as a percent of 1938	410	237	79	179	160	133	109	139
Nitrogenous Fertilizer	thousands of tons nitrogen content	435	350	506	220	21	305	276	2,113
	as a percent of 1938	253	179	147	202	263	248	271	200
Dyestuffs	thousands of tons	6.9	27.9	33.0	22.0	—	60.0	25.2	175.0
	as a percent of 1938	314	243	69	176	—	211	125	142

Data: Economic Commission for Europe.

BUSINESS WEEK

Where Marshall Plan Countries Buy

(from outside world, excluding dependencies)



Billions of Dollars in 1948/49 f.o.b. Prices

AREA	ACTUAL		ESTIMATED	
	1938	1947	1948/49	1952/53
North America	4.1	7.3	5.7	2.3
South America	1.7	1.7	1.7	1.5
Sterling Area	2.9	2.0	2.9	3.3
Eastern Europe (incl. U.S.S.R.)	3.0	0.9	1.1	2.2
Others	1.3	0.6	1.0	1.4
Total	13.0	12.5	12.4	10.7

Data: Organization for European Economic Cooperation.

BUSINESS WEEK

bilateral trade. This time it is to shake up the intra-European payment scheme. This is the system that was set up last fall to boost the volume of trade inside Europe. At that time pairs of countries decided what their trade would probably be up to mid-1949. Countries that were going to have a surplus granted drawing rights on their currency to countries that expected to have deficits with them.

Thus, Britain promised a credit of \$200-million to France. (This covered imports from the sterling area as well as from Britain itself.) Then \$200-million of ECA aid to Britain was made conditional on the credit actually being used.

The trouble with this system is that France can use its sterling only to buy British or sterling-area goods. It can't buy the same goods in a country such as Belgium even if they are cheaper there. The result: Trade is kept in artificial channels and no pressure is put on the British to lower their prices.

When the scheme was launched last year, the British successfully fought off U. S. pressure to make the drawing rights transferable, that is, to let France use the sterling to buy in Belgium. The British argued that this would increase Belgium's holdings of sterling to the point where London would have to pay gold to Brussels.

ECA was determined this year to beat down the British opposition. And Harriman seems to have succeeded to some extent. The new payments scheme that's slated to go into operation June 30 apparently provides that part of the grants that creditors like Britain make to debtors like France can be spent anywhere in Marshall Plan Europe. Britain, however, gets a guar-

antee from Belgium against any loss of gold to Brussels in case France decides to use sterling for Belgian goods.

The new system won't do much to loosen up western Europe's trade. But it's at least a start toward freer competition. France, after all, will be able to shop around with the sterling it gets and that means British goods will face more price competition than they do now.

Then there's the problem of discrimination against U. S. goods. Can Europe afford to let down the bars to American competition at this point?

There's pretty general agreement even among ECA officials that this can't be done, at least not for consumer's durable goods. Two things would be sure to happen: (1) Western Europe's durable consumer's goods industries would not have a chance to get on their feet; (2) European consumers would grab for U. S. autos and refrigerators, use up dollars that are needed for food, raw materials, and machinery.

The fact is that Marshall Plan countries are looking for ways to cut down planned imports from the U. S. And nobody thinks of dropping discrimination when in that mood.

OEEC's permanent secretariat figured at the end of 1948 that the Marshall Plan countries won't be able to afford the \$3.8-billion of imports from North America that they have scheduled for 1952-53. (Based on 1948-49 prices, western Europe's imports from North America in 1938 were \$4.1-billion.) To pay for these imports, western Europe's exports to North America would have to be boosted to about three times the 1948 level.

In a report issued last December, the OEEC secretariat suggested that imports of \$2.3-billion (1948-1949 prices)

would be nearer the mark. This estimate was based on an appraisal of western Europe's ability to earn dollars in North America, not on European need. Added up, individual estimates of 1952-53 exports to North America came to \$2.1-billion.

The report regarded the figure as over-optimistic. A total of \$1.5-billion, about the same as 1938, looked more realistic to the authors of the report. (The difference of \$800-million between exports and imports would be made up by invisibles, estimated at about \$222-million, including earnings from American tourists in Europe and sales of sterling oil in the U.S.; plus an estimated \$550 million to be garnered from American buying in western Europe's dependencies.)

The report also trimmed down the figure for Europe's imports from South America from \$2.1-billion to about \$1.5-billion. This cut was based on a re-appraisal of the export possibilities in South America. Sales had originally been calculated at \$2-billion, though this would have meant taking away half the exports to South America that the U.S. had in 1947. European exports to South America totaling \$1.4-billion looked like a more sensible target.

The OEEC experts had some questions, too, about the volume of imports expected from eastern Europe and from the sterling area. However, in both these cases the problem seemed to be one of supply rather than exchange difficulties.

CHEAPER CURRENCIES

ECA is doing its best now to figure out ways to reverse this dollar import saving trend in western Europe. To some extent, this means a reversal in the American attitude, for, during the first year of the program, ECA went along with the whole dollar saving approach.

Perhaps this was only natural at a time when it was tough to squeeze enough goods for Europe out of a tight U.S. economy. Now U.S. businessmen are worried about losing the fat European markets and ECA is paying more heed to one of its original goals—keeping Europe open to U.S. exporters.

For this, ECA recommends a big boost in exports to the U.S. And one way to get that would be devaluation of the European currencies against the U.S. dollar.

U.S. officials, both in Washington and Paris, believe that devaluation must come before too long—whether before or after a readjustment of the exchange rates within Europe (exchange rate adjustments inside Europe are needed if the breakup of bilateral trade is to mean much).

Devaluation is supposed to serve a double purpose: (1) increase western Europe's exports to the U.S. and Canada, thus raising dollar earnings or at least holding them at present levels.

(2) Boost sales in world markets by making European goods competitive price-wise with U.S. goods. At the moment many American products outsell European products in third markets but open discrimination is often used against the U.S. exporter to allow European

goods in. ECA wants Europe to get the business on the basis of price competition.

No one on either side of the Atlantic doubts that Europe's export prices are higher than American on the average. With prices falling here in the U.S., the disparity tends to increase.

There's no doubt either that western Europe would gain a lot if devaluation made possible increased sales in the Western Hemisphere and thereby permitted freer buying here.

Take the case of Britain. It has already shifted a lot of its buying from the dollar markets of the Western Hemisphere. The result has been to build up prices for foodstuffs and raw materials in non-dollar areas. This increases the cost the British producer pays for his raw materials, thus keeping up the prices of the goods he exports. Until recently, Britain was buying sulphur from the Gulf of Mexico to process into sulphuric acid. Now it buys pyrites from French North Africa in place of sulphur, but the process is much less efficient and production costs have gone up.

But devaluation still doesn't look attractive to the British. The cost to their economy looks even higher than the one they're paying now.

Here's the reason: Devaluation of the pound would increase the cost of imports, put up the cost of living. This would be sure to bring wage boosts and the wage-price spiral would get into motion again. This is what happened in France in 1948 when the franc was devalued. Within six months production costs had gone up 20%.

From the U.S. angle, too, there's a real problem connected with devaluation of Europe's currencies—though so far ECA has not cared to acknowledge it.

Devaluation last year might not have caused a ripple here in the U.S. even if it had raised European sales in the American market by a lot. But if it should come this year and work as it is supposed to, there are sure to be cries from many American industries for more tariff protection or for special anti-dumping duties.

Other ECA plans for lifting Europe's exports to the U.S. probably wouldn't bring as strong a reaction here. These include: (1) simplifying U.S. customs formalities; (2) getting Europe to copy American sales methods; (3) European production of more goods that aren't produced at all in the U.S.

But even at the best these schemes aren't likely to make much of a dent in the problem. And neither is the tourist business.

U.S. TRADE PATTERN

The U.S. has to face a very real possibility that there is no politically feasible solution for the dollar problem. And if this is so, Washington will have to give up its quest for a multilateral trading system.

Multilateral trade grew up in the 19th century around western Europe, especially around Britain. There's no sign that the U.S. economy will duplicate Europe's, at least within the next generation. Actually a reverse

trend is in operation. Besides having the most highly developed industry in the world, the U.S. is also the world's largest surplus area of primary products and Europe's largest supplier of these.

Thus, American foreign trade differs radically from Europe's. It is similar only to the extent that we import certain foodstuffs and raw materials from primary producing countries and sell them manufactures in return. But the U.S. supplies primary products—as well as manufactures to western Europe. The European countries have only manufactures to sell us in return; our need for these is not even equal to the value of the manufactured goods Europe wants from us.

Both world wars have added to U.S. self-sufficiency. In each case production had to be geared to meet not only the needs of the American military effort but the special wartime and postwar needs of Europe.

New industries also sprang up to replace foreign supplies: chemicals and dyestuffs in World War I, synthetic rubber in World War II. Thus, in both wars, Europe's ability to earn dollars in the U.S. was cut down.

The increase in American self-sufficiency can be illustrated graphically enough. Total U.S. imports in 1948 were only 5% greater in real terms than in 1929 or 1937, though total 1948 production was about 70% higher. The drop in imports centered largely in manufactures.

The U.S. Dept. of Commerce has calculated that in the case of Europe, American imports last year were \$1,750,000,000 less than could have been expected on the basis of prewar experience. In the case of Asia and Oceania, the same yardstick showed that 1948 imports fell short by well over \$1-billion. The U.S. actually had an export surplus with this area, whereas prewar there had been an import surplus. Europe has been hurt in both cases, since prewar it earned in southeast Asia many of the dollars it spent on U.S. goods.

Theoretically, there are three things the U.S. could do to get the world back to multilateral trade: (1) a sizable reduction in U.S. exports; (2) a big increase in U.S. imports; (3) long-term U.S. lending, either government, or private, or both.

Well, what about exports? A drop in U.S. exports would have to come in either or both of two ways. There could be a drop in exports of U.S. primary goods to Europe. Or exports of manufactures might fall off to Europe and the rest of the world.

However the drop came, some U.S. producers would be hurt. But if it came in primary products to Europe, then Europe, too, would feel the pinch since it is unlikely that Europe can find a substitute for U.S. primary products by 1952-53.

A decline in exports of manufactures seems inevitable in any case. But beyond a certain point this, too, would hurt Europe since it would slow the industrial modernization plans. And a drop in U.S. exports of manufactures to, say, South America, would help Europe only if it came as a result of price competition. If it sprang from a shortage of dollars in South America, then Europe could earn no dollars in that area.

A large increase in U.S. imports of European manu-

factured goods would obviously be the best solution for Europe. But, as the Economic Commission for Europe says in a recent report, "There is no reason to suppose that the United States would be more willing than any other country to admit imports of foreign goods at the cost of restricting domestic activity and employment."

THE ONE ANSWER?

This seems to leave U.S. investment abroad as the most advantageous, or the least painful, solution of the dollar problem.

The great need, as some U.S. and European experts see the situation, is to get away from emergency financing.

As things look now, President Truman's Point 4 program will not do the job. Until the world economy is put back in working order private investment will not flow out of the U.S. in any big way.

What is recommended is that the U.S. draw up a long-term program of development loans, so many billions each year, and announce it in the near future. In effect, this would be giving the world notice as to the size of the export surplus the U.S. expects to have. Then foreign countries, particularly those in Europe, could adjust their trade and exchange policies to a reasonably early resumption of multilateral trade and payments.

Because of America's higher level of productivity, it would still be necessary for foreign countries to devalue their currencies in relation to the dollar. Otherwise they would be hard pressed to compete in third markets on a price basis. But the devaluation step could be taken with some confidence that the new rates would stick.

This would be especially true if the U.S. closed out the Marshall Plan with some sizable gold loans to restore western Europe's gold reserves. Today these are only half of prewar and, because of higher prices, they are worth less than half in terms of goods.

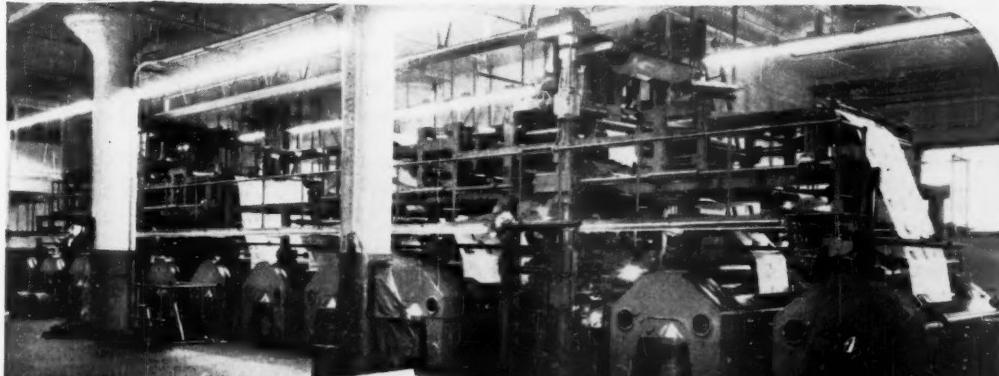
The development loans would serve to finance the gap between U.S. imports and exports, thus eliminating the hazards of a drastic fall in exports or a big increase in imports. The loans might go to Europe's dependencies or to other under-developed parts of the world. However, if the loans are to serve the purpose of restoring multilateral trade and convertible currencies, they could not be tied directly, as Export-Import Bank loans now are, to purchases of U.S. goods.

If the Marshall Plan is to be salvaged, and the unity of the West with it, the American people may have to think through this whole problem before many months.

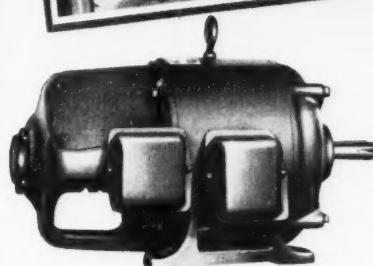
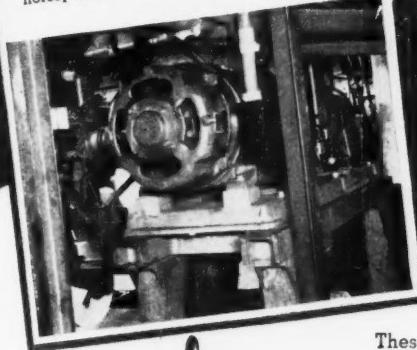
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Century Wound Rotor Motors



Tandem printing press powered by two 150 horsepower and two 100 horsepower Century Wound Rotor Type SR Motors. 150 horsepower motors usually operate the press—but when extra color rolls are put into use, the 100 horsepower auxiliary motors go into operation.



Popular types and standard ratings are generally available from factory and branch office stocks.



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Provide POWER and FLEXIBILITY for Large Equipment

Century Wound Rotor Type SR Motors are available for many applications, such as the printing presses shown here, plus compressors, cranes, hoists, bending rolls, bridges, syncro-speed drives, etc.

These motors are adaptable to applications that require

1. Adjustable varying speeds, or reversing direction of rotation
2. Syncro-speed, multiple drives used where two or more operations must be coordinated
3. Converters—to supply high frequency current
4. High starting torque with low starting current

Century Wound Rotor Motors are built in sizes up to 400 horsepower and are available in open protected or splash proof frames.

In addition, Century builds a complete line of alternating and direct current motors in a wide range of types and kinds—in sizes from 1 1/2 to 400 horsepower.

Specify Century motors for all your electric power requirements.

BUSINESS IN MOTION

To our Colleagues in American Business...

Millions of small electric motors to run on six volts are required by the automotive industry for heaters, defrosters and ventilators in cars and trucks. One of the problems encountered in economical manufacture of reliable motors was found in the commutator, which is the part that feeds current to the windings of the rotating armature. It is necessary for the commutator to have high electrical conductivity; it must also be as hard as possible, consistent with very severe forming operations in an automatic, high-speed multi-slide machine. Hardness is desirable to resist wear by the motor brushes, and also to withstand the centrifugal force developed at high rotational speeds.

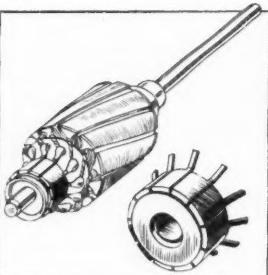
A manufacturer of these commutators came to Revere with these questions: which is the best material, and how hard could it be? Because of long experience with somewhat similar problems, Revere recommended trial of OFHC (Oxygen-Free High Conductivity) copper, four numbers hard. This was tested along with several other metals that seemed to possess at least some of the desired characteristics. The OFHC alone was found to produce excellent commutators, and with tolerances almost unbelievably close in this type of metal-working.

After the copper shells are formed, there is a plastic molding operation which requires the shell diameter to be held within .001", in order to prevent the plastic from flowing between the mold and the outer surfaces of the com-

mutator. For the same reason, an equal tolerance is imposed upon the height of the solid cylindrical portion. The plastic, which is tough and unusual in composition, serves both as insulation and as a mechanical connection between commutator and shaft without use of a bushing and key.

The success of this combination has been repeatedly demonstrated by tests. Speeds up to 35,000 r.p.m. have produced no failures in the commutators, though the rotor windings practically explode. At temperatures up to 400° F. there was no damage to the commutator, though the rotor wiring was badly damaged due to the combination of centrifugal force and decrease in wire strength. Thus once again the superior qualities of OFHC copper have been demonstrated.

Two things seem noteworthy in this case. First, the value of calling upon a supplier for not merely a product, but for his thorough knowledge of that product. Second, the fact that such knowledge makes possible new economy and reliability, even in combination with a totally different material. The supplier here happened to be Revere, and the materials are copper and a plastic. But the materials might have been anything, and the suppliers anybody, for throughout industry the skill and knowledge of sellers are freely available to buyers. All that is necessary for you to take advantage of them is to ask, and at the same time furnish complete information as to fabrication methods and conditions of use.



REVERE COPPER AND BRASS INCORPORATED

Founded by Paul Revere in 1801



Executive Offices:

230 Park Avenue, New York 17, N. Y.

TAXES

Minor Revisions

This session of Congress will make some technical changes in the tax code—but they won't affect your tax rates.

Congress is going to pass a tax bill this year—but the new legislation isn't going to change your taxes. Technical revisions of the revenue code—not cuts or boosts in rates—are all you can expect.

• **Approval Likely**—The bill is now being considered by the House Ways & Means Committee. It will almost certainly sail through both the House and the Senate at this session without a hitch. Here's why:

(1) It won't deprive the Treasury of any current revenue; the main objection to last year's unsuccessful revision attempt was its cost—more than \$1-billion.

(2) It would enable the Bureau of Internal Revenue to streamline its operations, save money.

Some of the more important features:

Verification of Returns. The bill would make it unnecessary for corporations, fiduciaries, partnerships, and estate- and gift-tax payers to file returns under oath. A simple signature would be enough to make taxpayers legally responsible for the truth of all statements contained in their returns.

Publicity on Salaries. The bill would abolish the requirement that the Commissioner of Internal Revenue make public the names of all corporate employees earning \$75,000 a year or more.

Excise-Tax Returns. The bill would permit taxpayers to file excise-tax returns quarterly instead of monthly; this would simplify paperwork for both the taxpayers and BIR.

Check Payment for Stamps. Existing law requires that checks in payment for internal-revenue stamps be certified. The bill would permit BIR to accept uncertified checks.

Compromises. The bill would permit local BIR agents to make binding compromises with taxpayers where the amount involved is less than \$500—80% of all compromise cases.

Credits. The bill would authorize the bureau to credit overpayment of one class of tax against taxes due in other classes.

Refunds. The bill would raise, from \$1,000 to \$10,000, the limitation on tax refunds that may be made by collectors in the field without prior Washington clearance.

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...a postage meter for everybody!



- The DM is about the size of a telephone, takes little desk or table space. But it's a real postage meter... makes mailing quick and easy.

- Prints the exact postage needed directly on the envelope... plus a dated postmark and a small advertisement (optional).

- Set a dial for the stamp value wanted for any class of mail, press the lever—and that's all! Never run out of needed stamp denominations. And no more bother with adhesive stamps, or stamp licking!

- Pass the envelope flap through the moistener and it's ready for sealing.

- A small container of gummed tape, fitted in place instantly, permits the DM to print postage on tape for parcel post, extra bulky pieces, etc.

- Protects postage from loss or theft... shows the amount used and on hand, on visible counters.

- The DM has smart design, good looks... costs little to use, is well worth the convenience—in any office, large or small! Ask any PB office to show you... or write for free descriptive folder.

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*Originators of the postage meter... largest makers
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330 WEST 42ND STREET, NEW YORK 18, N.Y.

Mechanized Selling cost of making sales...

1

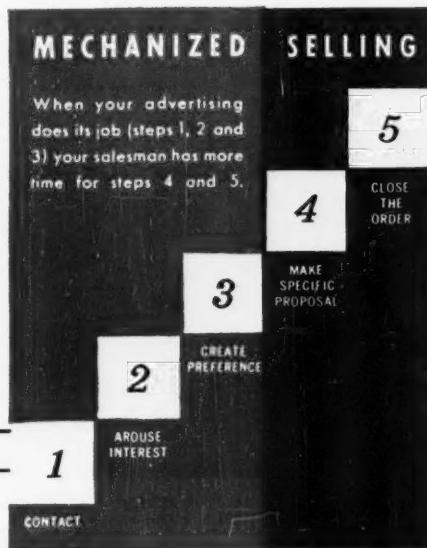
Mechanized Selling Makes Contact. This advertisement for the "Any" Manufacturing Company is a typical example of how the first three steps to a sale are speeded up through *Mechanized Selling*. For Mechanized Selling is Advertising. When the prospect reads this advertisement, and sees the identifying signature of the "Any" Company, a *sales contact* has been made! It tells the prospect WHO and WHERE the "Any" Company is, and WHAT it manufactures.

2

Mechanized Selling Arouses Interest. If the reader is a prospect for the kind of product the "Any" Company makes, he'll want to know more because *it's his business to be interested!* The "Any" advertisement shows him what the product looks like, how it works, what its chief advantages are. What a time-saver for the "Any" sales staff!

3

Mechanized Selling Creates Preference. Stressing the cost- and time-saving advantages of the "Any" Company's product, this advertisement creates a favorable regard in the prospect's mind. It opens the door for the "Any" salesman to apply his specialized abilities and limited selling time where they will do the most good. Mechanized Selling has lightened the burden the salesman must carry when he climbs those first three steps alone. **That's Mechanized Selling at work!**



YOUR SALESMAN is the most important, and the most expensive, factor in your sales program. Today, when the going is tougher and sales are harder to get, it is more important than ever to give him maximum support and all the time he needs for these last two vital steps. By freeing him from preliminary chores, MECHANIZED SELLING helps him concentrate on the crucial steps that get the order. You save dollars in selling costs when you tell your story through Mechanized Selling at a cost you can count in pennies per contact.

Have you read "ORDERS AND HOW THEY GROW"? This lively 24-page booklet tells about Mechanized Selling in the language of the man who needs it most—your salesman. We'll gladly send you a copy. We know it will interest you.

PRODUCTION



SEA WATER for submerged testing of all kinds of materials feeds into basin at International Nickel Co.'s corrosion station at Kure Beach, N. C.

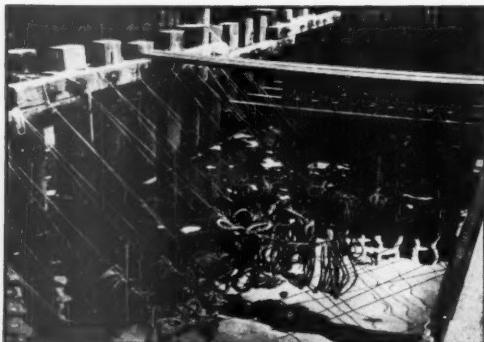


RAIN beats down on specimens in tests. On better days, the sun's . . .

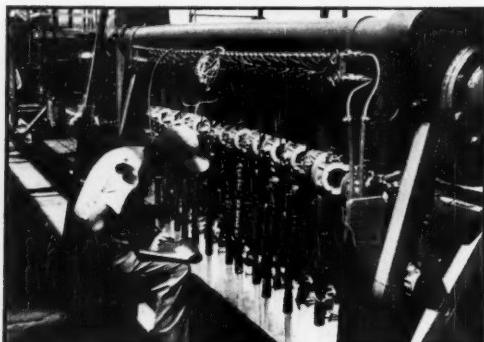


SHINE continues the ordeal designed to find out what corrosion can do

Putting Ocean to Work for Industry



ROPE is only one of the many nonmetals tested at Kure. Alternate submersion and drying proves its strength



MODELS of heat exchangers undergo water tests to see which corrodes least (TURN TO PAGE 62)



"LUCKY THAT CAR WAS GOING SLOW, YOUNG LADY!"

IF THE man in that car hadn't been a careful driver, he might not have seen you in time. I hope this little scratch will teach you *never* to play in the streets!"

Traffic Safety should be *your* aim—and *your* responsibility as a car owner. Know the laws and respect your traffic officer—heed road signs and signals. Drive only at reasonable speeds, slower after dark. Keep in your own lane. Don't insist on "right-of-way." Pass only when you have clear vision ahead. Don't mix driving and drinking. Stay well

behind the vehicle in front of you. Keep your car in top condition. And by all means carry adequate *automobile insurance* with a sound, reliable, nationwide organization such as Hardware Mutuals.

Phone Western Union

Use this convenient "get acquainted" service. Simply call *Western Union* by number, ask for *Operator 25*, and say you'd like the name and address of your nearest Hardware Mutuals representative. You'll find him worth knowing!

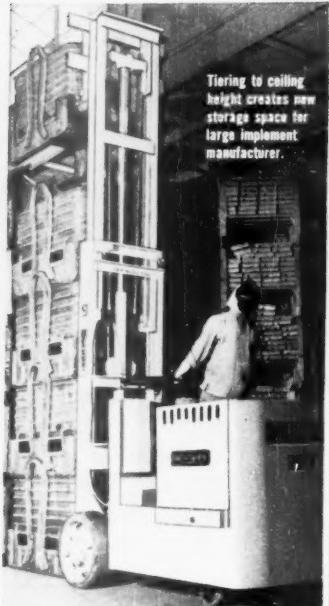
Casualty and Fire Insurance for your AUTOMOBILE...HOME...BUSINESS

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greater inventory
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Five times greater inventory handled with no appreciable increase in plant facilities—that's the record established when a fleet of Mercury Fork Trucks replaced former handling methods for this large implement manufacturer.

Tiering to ceiling height created new storage space...unit handling of 2500-4000 lb. loads expedited materials from receiving, through processing to shipping. It'll pay you to consult Mercury's 38 years' handling experience. Ask a Mercury Sales Engineer to call.



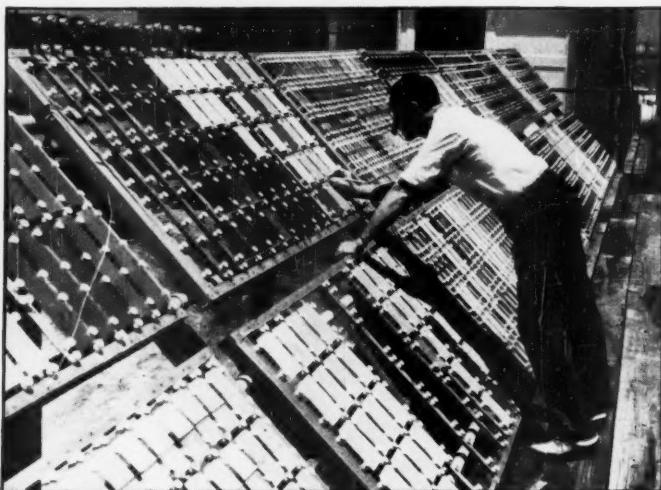
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TRACTORS TRAILERS LIFT TRUCKS

CORROSION LAB (continued from page 60)



SPECIMENS at Kure Beach include many pieces that have been weathering for six years

Logging Corrosion Data

International Nickel Co.'s seaside research at Kure Beach has made it a leader in the battle against rust. Tests on materials run continuously in all kinds of weather.

Did you ever think of putting the ocean to work for you?

Probably not. Most production men would be hard put to figure out a job it could do. But, though you may not realize it, the ocean already has an important role in engineering. It is constantly furnishing data on one of industry's most vexing problems—corrosion of metals.

• **Test Station**—One of the best-known places where the sea has become a proving ground for metals is Kure Beach, N.C. There, close to 12 years ago, International Nickel Co., Inc., set up an unusual corrosion test center. Over the years, the station has expanded steadily. Today, because industry demands still more information on corrosion, Inco has spread out even further. It now has in operation a new underwater station at Wightsville Beach, about 20 mi. from Kure.

• **Metals Wrecker**—The reasons for the increased concern over corrosion are obvious. Corrosion is a costbuilder for every industry that uses metals (BW—Apr. 16 '47, p72). It calls for constant watchfulness, costly replacement. Today, when the dollar is becoming an elusive quantity, industry is turning more and more to preventive maintenance. A knowledge of what corrosion can do is the only effective means of

making that maintenance successful in decreasing replacement costs.

Today, at Kure Beach, whole segments of industry are cooperating to unravel the electrolytic phenomenon of corrosion. Atmospheric tests and intermittent- and full-submersion tests are constantly underway. More than 15,000 metal and nonmetal specimens are taking the corrosive beating that only nature can provide.

• **Scope**—Kure Beach began because of Inco's interest in the effects of nickel additions to steel. It grew in size until now its studies cover: (1) corrosion of all metals, including titanium, and the rare zirconium; (2) the effects of salt spray, atmosphere, and submersion on nonmetals, finishes, and rope; (3) the reaction of manufactured products (piping, joints, heat exchangers, turbine blades) to unusual conditions of water velocity and temperature; and (4) the effect of marine growth and life on woods, nonmetals, and metals.

• **How It Helps**—What can industry get out of this? Plenty, if you talk to Frank LaQue, corrosion expert of Inco, who heads the Kure Beach setup. From its tests, the laboratory has piled up corrosion-rate data on thousands of alloys and metals (some of the alloys are special prescriptions that never saw commercial use). These performance data can help

"GIVE THE SPUR" TO BUSINESS!

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Keep ahead with price changes.
Announce new or special prices, make bids, stay abreast of changing markets with action-getting telegrams. Telegrams beat competition—give immediate, "on record" notice.

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Keep ahead in daily operations. To ride close herd on all phases of your business, use Western Union. It's the efficient way to send daily reports, instruct salesmen, contact the trade—speed up business.

Keep ahead in sales . . . with "Book" Telegrams

"Book" telegrams—an identical message sent to a list of customers—are easy to use. All you do is supply one message and a list of addressees—Western Union does the rest. Telegrams can help *your* business sell in the buyers' market . . . just as they have for countless others.

With purchasing power actually higher than a year ago . . . but customers more selective . . . call on Western Union. Whether to the trade or the public, nothing carries sales impact . . . stimulates action . . . so strongly as a telegram.



Ride Herd on your business . . . with Telegrams!

1. To acknowledge orders, inquiries and remittances.
2. To advise of arrival or departure of shipments.
3. To confirm travel reservations.
4. To get quick payment on overdue accounts—make credit inquiries.

NOTHING ELSE GETS THROUGH,

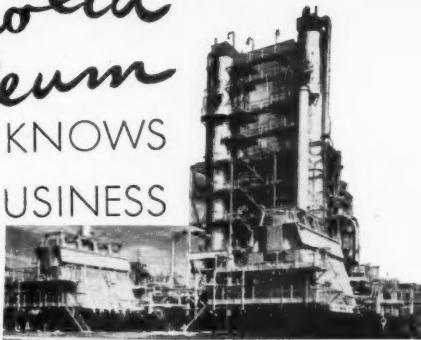
GETS ACTION . . . LIKE A . . .

Ask a Western Union representative to call and explain—with actual case histories —how telegrams can help solve your sales promotional problems . . . and assist you in the daily conduct of your business.

WESTERN UNION TELEGRAM



magnolia Petroleum KNOWS THE OIL BUSINESS



The big Magnolia Petroleum Company refinery at Beaumont, Texas... where over 400 different petroleum products are manufactured. Certainly Magnolia Petroleum knows the oil business!

BUT DEPENDS ON
Crotty Brothers TO
RUN ITS EMPLOYEE RESTAURANT



Magnolia provides this attractive cafeteria as a morale booster for its 3,200 employees.

Its management, however, Magnolia delegates to Crotty Brothers Food Service. This relieves the company of all operating problems and provides a trained staff to prepare and serve good, satisfying, hot foods at minimum cost... a carefully calculated result of Crotty Brothers' know-how.

★ For information on how Crotty Brothers Food Service functions under company direction, write for the new, free booklet, "Employee Restaurants".

**CROTTY
BROTHERS INC.**

OPERATING IN 18 STATES AND 47 CITIES



137 NEWBURY STREET, BOSTON 16, MASS.
111 WEST WASHINGTON ST., CHICAGO 2, ILL.
303 SOUTHLAND ANNEX BLDG., DALLAS, TEX.

FOOD SERVICE MANAGEMENT SINCE 1930

industry in its choice of metals, or non-metals, or finishes for its products. And the experience data can often give designers ideas on how to avoid corrosion failures.

• **Solutions From Stock**—Thus, Kure Beach's facilities, and its background data, can be mighty important to your plant pocketbook. The station might have the answers to:

How much corrosion you can expect; how soon it will come; and what you can do about it. More often than not, there are definite tactics you can use to delay corrosion.

Here's one example:

Corrosion produces compounds on the surface that are either oxides or salts. The nature of the compounds determines how far the corrosive process will go. A plain piece of steel roofing, for instance, forms an oxide that, under the proper conditions, will cause it to rust to nothing. Aluminum, on the other hand, forms a protective oxide. This completely covers the metal and delays corrosion. The covering and its treatment, therefore, are extremely important. Tests have shown that buffing the undercoat of copper and the over-coat of nickel in bumper steel makes the metal stand up better than unbuffed specimens. Possibly, the buffing action tends to "spread" the protective metallic coatings more uniformly over the metal.

• **Taking Part**—That's a typical finding that has come out of the studies by Inco and other companies cooperating at the station. These companies include Dow Chemical Co., Carnegie-Illinois Steel Corp.; American Rolling Mill Co., Bethlehem Steel Co., Republic Steel Corp., Aluminum Co. of America, and others. Marine work on organisms is done under the supervision of William F. Clapp Laboratories.

• **Advantages**—The way engineers see it, Kure Beach has three big advantages as a proving ground: (1) Natural exposure provides combinations of sun, rain, high humidity, and spray that can't be simulated exactly indoors; (2) an on-the-site laboratory permits quick evaluation of specimens (weight loss, microscopic changes in structure); and (3) the tests, run as they are under natural conditions, provide a firm basis for future indoor laboratory work.

Kure Beach is run strictly on a "research" basis. Frank LaQue won't allow "competitive" testing (comparing one company's products with another's). Any company, though, can take part if it is seeking basic data that will add to the total knowledge of corrosion, and if it is willing to allow results to be co-ordinated and published for all of industry.

The corrosion experts who run the station have the final say as to who can participate.

**WILL THIS
"NEW" MATERIAL
HELP YOU SELL
YOUR PRODUCT?**



ALSiMAG
Reg. U.S. Pat. Off.

Any product gains an important sales advantage by an increase in performance or a decrease in cost.

AlSiMag custom made technical ceramics can bring one or both these advantages to many products. Since special compositions are being developed continually to meet specific requirements, AlSiMag is always a "new" material. AlSiMag is the trade marked name of a large family of technical ceramic compositions.

Various raw materials, fluxes, pressures, processes and firing temperatures permit the production of AlSiMag ceramics with specific characteristics to meet many special requirements. The range of controllable and obtainable characteristics is quite wide.

Certain combinations of physical characteristics are obtainable in AlSiMag Compositions and IN NO OTHER NATURAL OR COMMERCIALLY PRODUCED MATERIAL.

AlSiMag compositions are custom developed and components custom fabricated to fit individual product requirements. Yet some AlSiMag compositions have been so widely used for so many years in so many industries that they are considered basic materials. A chart giving the physical characteristics of the most frequently used compositions is available. Please use your business letterhead to request the free AlSiMag Property Chart.



YOU MAY WISH to call
this advertisement to the attention
of the man in charge of
product development.

For your guidance we list some of the general characteristics of AlSiMag compositions. Characteristics especially desirable for your product can be emphasized.

- ✓ A precise mineral product.
- ✓ Good resistance to impact.
- ✓ Hard, tough, homogeneous.
- ✓ Unaffected by most industrial or operating temperatures.
- ✓ Permanently rigid.
- ✓ Controllable coefficient of friction.
- ✓ Wear resistant.
- ✓ Unaffected by age.
- ✓ Controllable porosity.
- ✓ Does not rust or corrode.
- ✓ Complete range of dielectric properties.
- ✓ Chemically inert.
- ✓ Uniform, accurate—both physically and dimensionally.
- ✓ High mechanical strength.
- ✓ Withstands repeated hot-cold shock.
- ✓ Parts quickly fabricated in large quantity at low cost.

If any of these characteristics suggest an advantage to your product or production processes, outline your problem to us. We will furnish suggestions or recommendations promptly and without cost or obligation. When pertinent and where no breach of confidence is involved, we will send samples of parts produced for other manufacturers.

*Not new to Electronic and Electrical Engineers. Now in its 48th year of Ceramic leadership, American Lava Corporation produced over a million pieces daily for Signal Corps, Air Corps, Navy, etc., during the War. Present capacity is in excess of two million pieces a day.

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How to Save on Plastic Parts

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MAKERS of MICRO Precision Switch produce their case-covers and other parts on fully automatic Stokes Plastics Molding Presses at rates geared to daily assembly and shipping requirements.

Material waste is reduced to a minimum and production accurately gauged to meet inventory needs. There is carefully planned economy in every phase of Stokes fully automatic plastics molding.

Fully automatic control of feeding, pressing, curing—indeed, every molding operation—produces uniform parts completely free from distortion, completely free from human error.



Stokes is the only maker of *fully automatic* molding presses for thermosetting plastics. These presses are internationally famous for low-cost production of plastic parts...large or small...simple or complex...a few at a time or by the million.

Send for a Stokes engineer, or for literature on Automatic Molding. Or, send parts or blueprints for free analysis of suitability for automatic molding.

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Stokes makes Semi-Automatic and Automatic Molding Presses, Plunger Presses, Closure Presses, Preforming Presses, Industrial Tabletting and Powder Metal Presses, Vacuum and Special Processing equipment, Water Still, and Special Machinery.

STOKES

KNOWS
HOW

New Pallet Pool

Round-robin deal, set up by National Pallet Corp., gets a test by rubber companies. Goal: to cut handling costs.

A "round robin" for pallets is getting a tryout in Akron this week. It may solve the problems that have made some companies shy away from pallets for shipping.

• **Problems**—Shipping pallets (platforms on which a lot of pieces are stacked for handling as a unit) are handy things if you can afford to use them. Industry generally is sold on them as a means of cutting loading and shipping costs. But pallets cost too much to throw away after one use; yet, to reuse them, you have to pay freight to get them back.

Disposable pallets sound good, but they don't generally carry heavy loads. They aren't very cheap either. Rental pallets sound good too, but up to now they have flopped. It takes too much bookkeeping and too many contracts to keep track of the pallets.

• **New Pool**—Now National Pallet Co., Pittsburgh, has set up a new kind of pool so that rubber companies of Akron can palletize their carbon black and synthetic rubber. Here's the plan:

National Pallet sells pallets to carbon-black shippers for \$2.30 each. The shipper loads the pallet, bills the rubber company for the material plus \$1.65 for the pallet. The rubber company unloads his carbon black, sells the pallet back to National for \$1.65.

For the 65¢ National gets out of the deal, the company must refurbish the pallet with a new top, ship it to the next user, who also pays \$2.30.

• **Payoff**—Because National's profit is in pennies, the pool has to be put over on a volume basis. On carload shipments, National figures the round-robin act will pay off in six trips.

The shipper makes up for his 65¢ loss by savings in handling palletized goods. The pallet is a special job. It measures 40 in. by 48 in., has 3½ in. clearance for truck forks, weighs 45 lb. It will carry 1,750 lb. of carbon black. A truckload of synthetic rubber, palletized, can be loaded in two hours. Unpalletized, it takes nine. It's expected that a carload of synthetic rubber, palletized, can be unloaded in three, instead of six, man-hours.

• **Goal**—Harry I. Miller, president of National, has been pushing the pool idea for some time in cooperation with the rubber companies. If the pool goes over with them, National hopes to sell the plant to traffic men in other centers. Its objective: a "circulation" of 250,000 pallets.



The M. & St. L. Specialist in Transportation of Great Grain Crops

IN 1948, the United States harvested the greatest corn crop in history—3,650,548,000 bushels. This was more than half again as large as the relatively short crop of 1947.

Of last year's stupendous corn crop, 1,620,050,000 bushels or 44 per cent was produced in the four Midwest States in which the Minneapolis & St. Louis Railway is a big-scale carrier of grain. Iowa, the No. 1 corn state, harvested 666,730,000 bushels; Illinois, 549,793,000; Minnesota, 272,055,000; South Dakota, 131,472,000.

Conditions today forecast another huge corn harvest in 1949, creating new wealth for Midwest Farmers and new prosperity for their communities. As in each year for more than three-quarters of a century, much of this corn, the foods and feeds made from it and the livestock fattened on it will be transported by the M. & St. L.

Since 1871, efficient transportation of grains and other products of agriculture has been a specialty of the M. & St. L. Today, this modern railway is better equipped than ever before to maintain its long reputation for

FAST DEPENDABLE FREIGHT SERVICE

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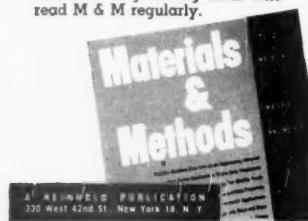
The Minneapolis & St. Louis Railway

General Offices: Northwestern Bank Building, Minneapolis 2, Minn.

Materials engineering ...what it means in selling your products!

Materials-selection in the PRODUCT MANUFACTURING INDUSTRIES has become a highly specialized function performed by materials experts. These men must keep up-to-date on the properties of engineering materials, and the processing methods which change or improve these properties.

If you sell engineering materials, parts or finished used in product manufacture, or equipment for changing or improving the properties of materials, you will want to tell your story to the 16,000 materials engineering men who read M & M regularly.



FORGINGS

Offer Many Sure-Fire Ways to Reduce Costs at the Point of Assembly

Forgings permit reduction of dead weight because maximum strength and toughness are obtainable in lighter sectional thicknesses. The metal quality and cost reducing advantages obtainable in forgings cannot be equaled or duplicated. Recheck every stressed part in your equipment and consult a

forging engineer about possibilities for reducing costs by using forgings.



Write for 60 page booklet on "Metal Quality" which shows how users benefit from all the adherent advantages of drop forgings.

DROP FORGING ASSOCIATION
605 ANNEX HANNA BUILDING
CLEVELAND, OHIO

New Engines

S.A.E. meeting hears reports on free-piston engines and on powerplants that use diesel exhaust to run a turbine.

When auto-industry men went back home last week, from the summer meeting of the Society of Automotive Engineers at French Lick, Ind., two things were evident from their get-together:

(1) Engineers are looking around for other, perhaps better, means of generating power for cars and trucks; and

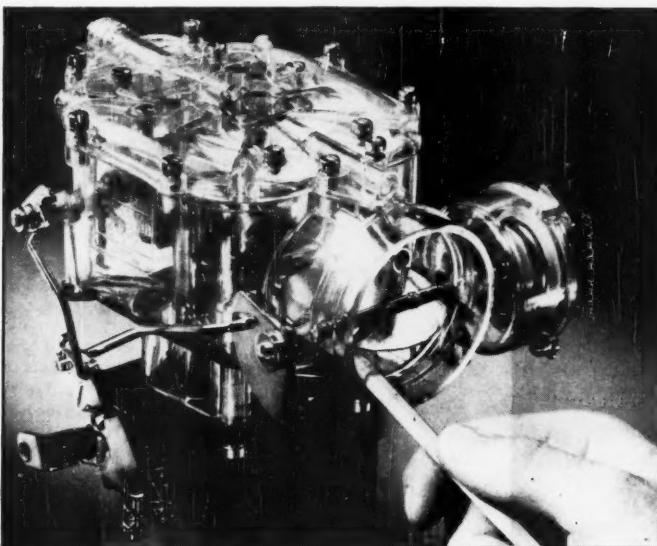
(2) Some rather novel concepts in motive power may lie just over the horizon.

• **Free-Piston Engine**—L. F. Small, of Lima-Hamilton Corp., New York, hailed the "gasifier" engine—more commonly known as a free-piston gas turbine—as the natural heir of the diesel engine for most applications between

1,500 and 20,000 h.p. He thinks the free-piston engine will fall into a middle spot on the power scale between diesels and steam turbines. The company is now at work on free-piston engines for locomotive installation (BW—Jun. 18 '49, p83).

• **Compounded Engine**—Two men, P. H. Schweitzer, of Pennsylvania State College, and J. K. Salisbury, of General Electric Co., went into another phase of power generation. They reported that it is practical to use the high-pressure hot exhaust gas from a diesel engine to run a gas turbine. Such a powerplant can be built which will be competitive with conventional gas turbines in both size and weight, excell the gas turbine in fuel economy.

Compounding piston engines and gas turbines in this way (using the engine exhaust to power a turbine), Schweitzer and Salisbury said, promises recovery and use of perhaps a fifth of the fuel energy that is usually wasted through the exhaust end of an engine. This exhaust waste, they said, repre-



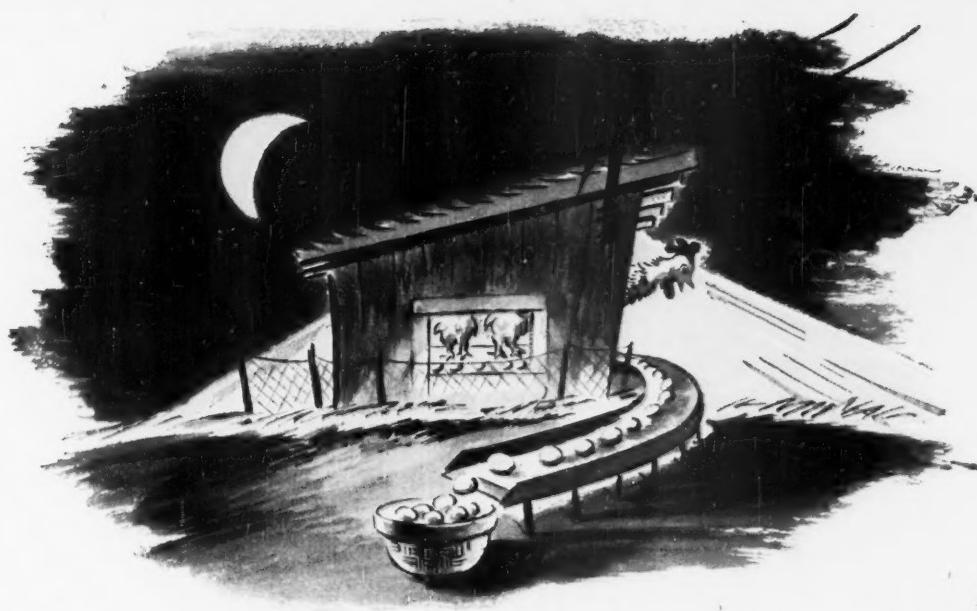
Cheap, Accurate Plastic Model From Original Die

Transparent plastic models are often a good means for demonstrating complicated devices. But the trouble is that they usually cost plenty because they involve so much hand labor. So Ontario Plastics, Inc., Rochester 13, N. Y., has worked out a cost-cutting way to make demonstration models in quantity.

Ontario had an order from General Motors' Rochester Products Division for models of a seven-piece, highly complicated carburetor. The plastic company borrowed

a set of the regular dies from which G.M. diecast the commercial version; it used them to mold the plastic parts out of cellulose acetate-butylate (called Tenite by Tennessee-Eastman Corp.). Dies had to be modified only slightly.

Advantages to Ontario's method: Because the models aren't handhewn, it doesn't cost much to supply them in quantity to salesmen; they are light and strong; they reproduce accurately the exact dimensions of the part they represent.



Production is UP in the Henhouse!

In addition to all the labor-saving and comfort value that electricity brings to the farm, its scientific utility is becoming more and more important. It has been found, for instance, that hens stay awake longer and lay more eggs in electrically lighted henhouses.

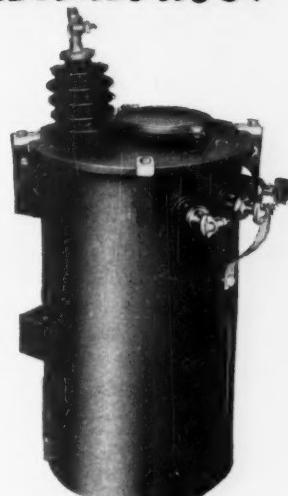
Cows, too, get into the swing by giving more milk when they contentedly listen to soft music while electric machines relieve them of their lacteal fluid. And pigs get fatter when nocturnal feedings are arranged by electrical "daylight."

Wagner is playing a large part in rural electrification through the placement of thousands of Wagner Rural Transformers. Soundly engineered and capably built, these transformers uphold the Wagner reputation for dependability earned during over half a century of designing and building distribution and power transformers.

Wagner engineers are qualified to specify the correct transformer for your exact requirements. Consult the nearest of our 29 branch offices or write us.

Wagner Electric Corporation

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Wagner Type HEF Conventional
Rural-Line Transformer



ELECTRIC MOTORS • TRANSFORMERS
INDUSTRIAL BRAKES
AUTOMOTIVE BRAKE SYSTEMS — AIR AND HYDRAULIC

**RAISE YOUR
WATCHMAN'S
EFFICIENCY**

**LOWER YOUR
INSURANCE
COSTS**

**Get This
Folder**

**WHO'S
WATCHING
YOUR
WATCHMAN
TONIGHT?**

**with the
CHICAGO
WATCHCLOCK
System**

*Puts Pep in
the Step of
Watchmen*

Pays for itself —
Quickly—through reduced insurance rates. Then makes money for you year after year! Greatly increases your protection against fire, theft and vandalism. Costs little. Anyone can install system. Only tool needed is a screw driver! Used all over the world! Write today to

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The First—and Still the First
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**cuts ALL hard
work and high costs out of
materials-handling...**

You get power forward and reverse from 1½ to 4 m.p.h. with handy, low-cost Moto-Bug. • Hauls 10 cu. ft. in big bucket, or 1200 lbs. on sturdy flat-bed. • 4 h.p., 4-cycle engine takes full load up 20% grades; ramps. • Steers easy by lever direct to dual wheels. • Result: bigger loads per trip, less operator fatigue, more loads per day.

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Please send Bulletin Prices on Moto-Bug.
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sents nearly half of the potential in the fuel.

• **Data**—Two engineers from Wright Aeronautical Corp., Wood Ridge, N.J., F. J. Wieland and M. R. Rowe, supplied test data on use of such compound engines in planes. Such engines boost available power between 20% and 30%, they said. Exhaust gases from aircraft engines, carrying pressures of about 200 p.s.i., were applied to a turbine without seriously affecting engine output.

In the long run, they stated, compounded engines will prove more practical and economical than jet engines for flying long distances; because compounded engines are able to fly with a 25% to 50% smaller fuel supply than existing turbo-prop or turbo-jet powerplants require.

• **Caution**—Reports at the meeting on future trends weren't all positive though. W. A. Turnen, General Motors Research Laboratories, put a temporary damper on the idea of using turbine engines in cars.

He conceded that turbine use might mean operation on a wide range of fuels, lowered vibration, simplified lubrication and ignition systems. But—with today's designs, at least—these advantages are outweighed by the disadvantages: high fuel consumption, big space requirements, noise, and high initial cost.

PRODUCTION BRIEFS

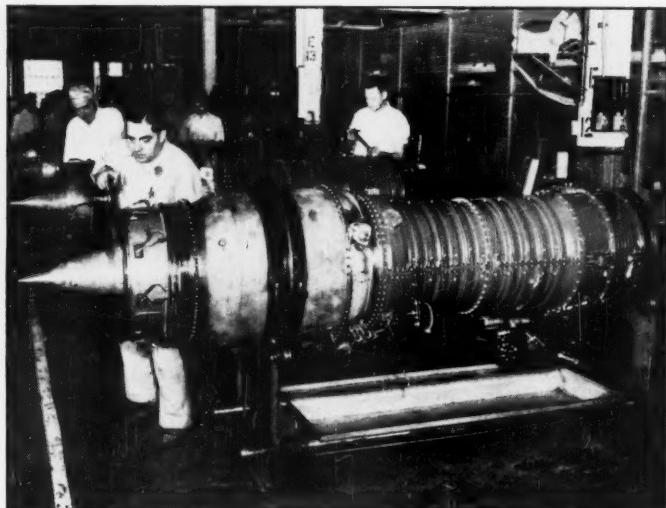
How to maintain industrial instruments will be the point of a clinic scheduled by the Instrument Society of America at the Hotel Statler, St. Louis, Sept. 9 to 12.

Canadian subsidiary has been formed by Sylvania Electric Products. The new Sylvania Electric (Canada) Ltd. will begin production of fluorescent lamps and other lighting equipment near Montreal next month.

Frozen mercury process will be used by Thompson Products to cast super-hard metals for jet-engine parts. Thompson has a license from Mercast Corp. to use the process.

Mahle die-casting machine, developed in wartime Germany, is recommended for U.S. use by the Dept. of Commerce. It's fully automatic, turns out 2-lb. and 3-lb. magnesium castings. Write to Office of Technical Services, Washington 25, D. C., for bulletin PB-97,113.

Dielectric process for drying sand cores speeds up molding and core-room operations, says Allis-Chalmers Mfg. Co. Radio-frequency heating dries cores in 2 min. to 20 min.



Westinghouse Makes Its 1,000th Jet Engine

The jet-engine production lines at Westinghouse Electric Corp.'s Philadelphia plant have turned out its 1,000th engine. The engines produce 3,000 lb. of thrust (at aircraft speeds, that's equivalent to about 5,000 hp.). They are being made for installation

on the Navy's fast "Banshee" carrier-based fighter, made by McDonnell Aircraft Corp. The engines will also power the Navy's transonic plane, built by Douglas Aircraft Co., and several Air Force fighters, including the McDonnell-made "Voodoo."



They Found Power for a Nation at Jordan Nelson's Forge

The blacksmith, Jordan Nelson, turned from his anvil one day in 1873 to watch a small group of men, fatigued and travel-torn, emerge from the dense forest surrounding his clearing in the mountains of western Virginia. The strangers had journeyed through the almost impenetrable mountains — to see if it were true that the smith had discovered coal in Abb's Valley. There they saw a remarkable seam of superior Bituminous Coal, 12 feet thick, which Jordan Nelson had opened for his own use and to sell to settlers who carried it away in sacks on their mules.

This was the discovery of a treasure of fabulous potential value . . . power for a nation — yet almost worthless unless it could be made accessible to the world.

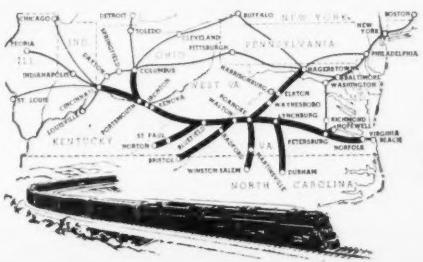
Despite cries of "Impossible", Frederick J. Kimball, then vice-president of the Norfolk and Western, started the construction of a railroad into the rugged mountains to the coal deposits. After two years of gruelling effort,

the line was completed, and on March 12, 1883, the first small car load of coal was shipped.

Since then the Norfolk and Western has moved a total of approximately one and one-half billion tons of all-purpose Bituminous Coal from mines along its lines.

This railroad, which last year carried 56,600,000 tons, is equipped to deliver the coal, in any volume, swiftly and efficiently. Rated among the finest anywhere, N. & W. coal handling facilities include nearly 50,000 sturdy coal cars of varied capacity, a fleet of powerful, modern steam locomotives, huge yards, large capacity, efficient coal piers, and precision scales.

Through the expenditure of millions in a continuous program of research, improved equipment and better operating methods, coal producers and consumers, big and small, are assured that they will continue to get dependable transportation for this most valuable mineral. That is the firm pledge of the Norfolk and Western Railway, one of the world's great coal-carriers.



Norfolk and Western RAILWAY

PRECISION TRANSPORTATION



"Our Rule is to use THINSTEEL"

TRADE MARK

—says a CMP customer, and you can wager a dozen of his shiny steel tapes that cost saving production and profitable sales acceptance is behind that statement. It's typical though of many CMP customer reports—good proof of CMP's claim that Thinsteel (whether it be spring steel, electro-zinc-coated, low carbon, alloy or stainless) gives you more feet per pound, more finished parts per hundred pounds. Reason? The CMP precision rolling techniques and processing advancements that mean unvarying accuracy in coil after coil. Perhaps you could benefit, too, by exploring the possibilities of using Thinsteel. We'll be glad to send samples or meet you at your desk.



the Cold Metal Products co.
YOUNGSTOWN 1, OHIO

New York • Chicago • Los Angeles
Indianapolis • St. Louis • Detroit

NEW PRODUCTS



Tiny Tractor

Earl H. Pence Co., Berkeley, Calif., has a baby bulldozer, 6 ft. long and 38 in. wide. The company recommends it for use on agricultural and contracting jobs where space is limited or the work is on a small scale.

The Agricat has most of the features of standard-size bulldozers. The company says it will work on the steepest hills, whether the cat is going up or down or around the slope. The machine can make an about-face turn if it has only 6 in. of leeway all around. Its 6-hp. gasoline engine has two forward speeds and one reverse; this gives it ample maneuverability for dirt-pushing and scraping jobs.

A blade 16 in. high on the front of the tractor can handle up to 8 cu. ft. of dirt. For farm work, you can substitute a 12-in. plow. The machine will also pull agricultural tools that aren't too heavy.

• Availability: immediate.

Token Taker

There are quite a few fare-recording boxes on the market, but Ohmer Corp. has come up with one that does a few extra jobs. The Rockwell Mfg. Co.'s subsidiary says its Fare-O-Matic makes fare collections a lot easier for bus and trolley drivers.

The machine automatically sorts coins as they are deposited by passengers, then automatically adds their value in dollars and cents. It takes all denominations of coins, and two sizes of tokens. A different-toned bell rings for each denomination of coin.

The machine registers 90 to 100 coins

or tokens a minute. An ejector clears the coin-sorting mechanism of defaced coins and slugs. When the ejector is engaged, the machine automatically locks.

After registering the coins, the machine feeds them into barrels of a built-in money changer so that the driver can make change. The company address: Box 998, Dayton 1, Ohio.

• Availability: immediate.

Fly-Weight Fastening Tool

A little larger than a fountain pen, the Cleco A-1 is an air-powered tool designed to speed up screw-driving jobs.

Pressing the tool against a screw or other fastener opens a throttle valve, releases the compressed air that starts the tool running. When the tool isn't in use, the valve cuts the air off—there's no free running.

The device weighs about one-third as much as other tools of similar capacity, so it's less fatiguing to use in continuous operation, the maker says. The tool won't twist in the operator's hand or jump out of the screw slot, he adds.

It's easy to reverse rotation of the tool to remove screws quickly. External adjustments for power and reversing make disassembly of the tool unnecessary. The tool is manufactured by the Cleco Division of Reed Rollerbit Co., P. O. Box 2119, Houston 1, Tex.

• Availability: immediate.

Portable Skip-Hoist

If lifting and emptying bags of free-flowing materials is a problem in your plant, then Jacob House & Sons' mobile hoist may be your answer.

Suppose you have to pour a bag of



skylines ... by Otis

UNITED NATIONS' headquarters, now under construction in New York City, will become the skyline of the new world envisioned in the preamble to the charter of the United Nations.



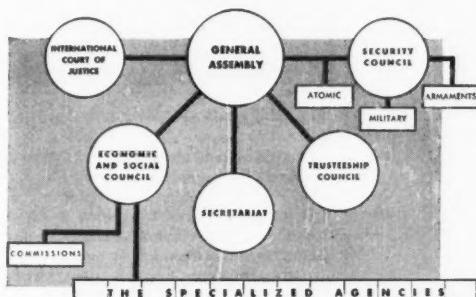
"WE THE PEOPLES OF THE UNITED NATIONS determined ...

to save succeeding generations from the scourge of war, which twice in our lifetime has brought untold sorrow to mankind, and

to reaffirm faith in fundamental human rights, in the dignity and worth of the human person, in the equal rights of men and women and of nations large and small, and

to establish conditions under which justice and respect for the obligations arising from treaties and other sources of international law can be maintained, and

to promote social progress and better standards of life in larger freedom,



and for these ends ...

to practice tolerance and live together in peace with one another as good neighbors, and

to unite our strength to maintain international peace and security, and

to ensure, by the acceptance of principles and the institution of methods, that armed force shall not be used, save in the common interest, and

to employ international machinery for the promotion of the economic and social advancement of all peoples,

*have resolved to combine our efforts
to accomplish these aims."*

All of the vertical transportation in United Nations' headquarters will be installed by Otis. It will include 29 electronically controlled passenger elevators; 14 Escalators; 2 high-speed service elevators and 2 heavy-duty freight elevators. In all, a total of 47 installations!



ELEVATOR COMPANY

Home Office: 260 11th Ave., New York 1, N. Y.

Sales and Service Offices in 457 Cities of 53 Nations

what every good secretary knows... about her boss

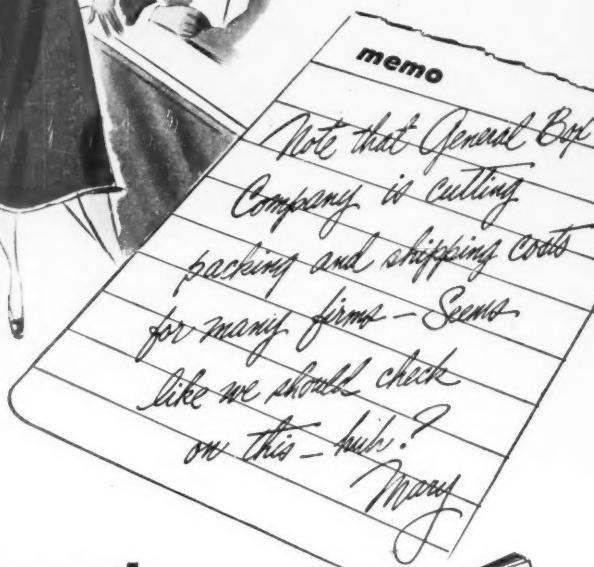


As a *good* secretary you know it isn't the regular assignments that make a hit with the boss, but rather the little thoughtful things.

Now . . . there isn't anything that is of more importance to management than profits . . . and profits depend much upon reduced costs. And that's where you come in—and where we come in.

General Boxes reduce costs; furthermore, they provide protection. Hundreds of firms know this, but perhaps your firm doesn't.

Why not drop your boss a memo? He'll be glad you did . . . and it will be added proof that you ARE a good secretary.



General

BOX COMPANY
... engineered
shipping containers

GENERAL OFFICES: 502 N. Dearborn St., Chicago 10.
DISTRICT OFFICES AND PLANTS: Brooklyn, Cincinnati,
Detroit, East St. Louis, Kansas City, Louisville, Milwaukee,
New Orleans, Sheboygan, Winchendon, Natchez.
Continental Box Company, Inc.: Houston, Dallas.



Send for your free copy of
"THE GENERAL BOX"



flour into a high mixing-vat. If you have one of the hoists, you can load the bag onto the machine at the floor level. Then the machine automatically lifts the bag to the brim of the vat and tilts it for emptying.

Various models of the machine will dump materials at any height you want—from 3 ft. to 30 ft. They take up 21 in. by 34 in. of floor space, 34 in. of head room. There are two lifting capacities: 150 lb. and 250 lb.

Totally inclosed fan-cooled motors are available for operating the hoist in dusty, wet, or outdoor conditions. You can also get explosion-proof electrical systems for plants with volatile or explosive atmospheres. The maker is at 52-54 Saint Paul St., Buffalo 8, N. Y.

- Availability: immediate.



Metal Checker

A test head, developed by Special Products Division of General Electric Co., is designed for use on large metal specimens that won't fit in a conventional test coil. The test head is connected to the company's metal comparator; the head makes a nondestructive test of the quality of metal parts.

The contact face of the head consists of a metal ring separated from an inner metal core by an air gap. This construction forms a radial magnetic path; you put the metal test piece across this path. The test head compares the electric and magnetic properties of the metal being tested with the standard properties set up in the comparator unit. A meter on the front of the comparator shows the variations between the standard metal and the tested metal.

The comparator-tester enables an operator to maintain close control on metal composition, heat treatment, or hardness. It's useful on forgings or on parts like machine-tool beds.

The equipment consists of an elec-



Marks Two Spots

where Mallory has
helped to make life
better for millions



Mallory Television Component Parts

Mallory has made notable contributions to the perfection of trouble-free and dependable television. For instance, one of the key components in a television set is the capacitor . . . a tiny "storage battery" that feeds the electrical impulses to the tubes. It must not fail. But the heart of the capacitor is delicate. Mallory scientists, working under Mallory precision ideals, found that the salts present in human perspiration would eventually affect the capacitor and shorten its life. So all Mallory craftsmen who assemble Mallory Capacitors wear surgical rubber gloves. This is typical of the care with which all Mallory products are designed, engineered and made—and why leading television set manufacturers have made Mallory their preferred source.

Another Mallory advance in television is the Inductuner*—an amazing device that provides continuous tuning of the entire television and FM spectrum with a single control!



Mallory "A" Battery for Hearing Aids

Smaller than a checker, the revolutionary Mallory "A" Battery opened up a new world for the millions of Americans who are hard-of-hearing. First, its small size allowed designers to streamline hearing aids, removing the burdensome bulk that made the old apparatus both uncomfortable and conspicuous. Even more important, Mallory's skill in electronics produced in this capsule-sized powerhouse a battery with a service life three to four times that of old style batteries. The Mallory "A" Battery also eliminated the nerve-shattering sound surges, fading and the need for "rest" periods.

So with one fell swoop, this Mallory advance swept away all the bugaboos—weight, conspicuous size, unnerving noises, fading and uncertain service—that had kept the hard-of-hearing in a world of sad silence.

- These examples of Mallory's achievements are only three of a long line of advances Mallory has made in the field of electronics, electrochemistry and metallurgy. Over the past 32 years, Mallory has set the pace in methods and materials in these complex and vital fields.
- If you have a design or production problem that falls within the scope of Mallory's interests, it will pay you to consult with our engineers now. Their imagination, creative research and experience have helped many manufacturers solve "unsolvable" problems, improve the quality of their products and cut production costs.

*Registered trade mark
of P. R. Mallory & Co.,
Inc. for Inductance Tuning
Devices covered by
Mallory Ware patents.

MALLORY

SERVING INDUSTRY with Capacitors • Contacts • Controls • Rectifiers •
Switches • Vibrators • Power Supplies • Resistance Welding Materials
MALLORY DRY BATTERIES... The Original Mercury Batteries

P. R. MALLORY & CO., Inc., INDIANAPOLIS 6, INDIANA



white" paper is specially processed for offset lithography. It is moderately priced and is recommended wherever lithographers demand sparkling, brilliant reproduction. Surface-sized, mill-conditioned, Mead Moistrite Offset comes in the famous, original, green, inner-wrap, moisture-proof package that protects every sheet to the moment of use.



This outstanding paper is typical of the many diversified Mead Papers that provide for practically every printing need. Mead Papers, including the Dill & Collins and Wheelwright brands, are preferred by leading printers from coast to coast and are sold by leading paper merchants.

In the field of business papers, for example, there is the genuinely watermarked line of Mead Papers. Mead Bond, "The Bond of American Business"; Mead Cockle Bond in cream laid or white; Mead Mimeo Bond; Mead Duplicator, Ledger, and Opaque make up a handsome and business-like assortment for letterheads, records, duplicating, and a variety of office and factory needs.

Where first cost is important, as in the preparation of inter-office memoranda and day-to-day reports, the Moistrite business papers represent the standard of

quality in the utility class. Ask for samples of Moistite Bond, Mimeo, Duplicator, Ledger, and Opaque.

For catalogs, house magazines, advertising folders, and other long-run items requiring halftone illustrations, Mead Process Plate is the economical process-coated paper that helps move mountains of merchandise every year. It is a versatile surface for 4-color process printing in regular inks or for "flash dry" and "heat set" inks.

Among book and advertising papers of many varieties, Mead manufactures such well-known brands as Mead-fold Enamel and Meadgloss Offset Enamel, D & C Black & White, Printflex Cover, Richfold Enamel, and Richgloss Offset Enamel.

A few of the better-known brands among Mead cover papers, bristols, indexes, and blanks are Wheelwright Fiberfold Bristol, Superfine and Olympic Bristol, Strongheart Index, Spotlight and Leatheright Covers.

Mead also makes a long list of specialties such as Mead Corrugating and Liner Board; Mead Heat Seal Label Papers; Mead Locker and Home Freezer Papers; Mead Laminated, Impregnating, and Waxing Papers. If you are interested in printing or are anxious to produce more sales at lower cost, write for free copies of *Better Impressions*, the demonstrator of selected papers in the Mead family.



THE MEAD CORPORATION
"PAPER MAKERS TO AMERICA"

Sales Offices: The Mead Sales Company, 230 Park Avenue, New York 17 • Dayton • Chicago • Boston • Philadelphia

tronic unit in a steel cabinet and the test-head unit. The electronic unit includes a balancing network, oscillator, and indicating meter.

- Availability: immediate.

P. S.

Plastic-film bag holds paint brush for storage, keeps it soft and usable for long periods. First you remove excess paint; then you put brush in bag. Top of the bag is twisted tightly and tied with string or elastic band. This keeps brush from drying out for as long as a year, the company says. Other bags for varnish and lacquer are now being tested. The maker is Dewey & Almy Chemical Co., Cambridge, Mass.

New Mode isn't a paint or an enamel, but it leaves a satin-like finish, dries in two hr., according to Sapolin Paints, Inc., the maker. It will take to wood and metal walls and withstand severest treatment from alkalis, scratching, and hot greases. The company is at 229 E. 42 St., New York 17.

Combination stapler-remover is a product of Bostitch, 1093 Mechanic St., Westerly, R. I. Stapled paper is slid under removal blade on stapler. Then the stapler knob is punched to take out staple.

E-Z Glaze Window Strips take the place of putty for glazing window panes. Triangular-shaped strips of clear plastic are first cut to fit a window frame. E-Z Glaze compound is spread along surface where frame meets glass. The strip is then pressed firmly into the corner, and excess compound is wiped off. Compound will set strip in about two minutes, is not affected by heat or cold. The maker is World-Wide Productions, Walton and S. Franklin Sts., Syracuse 2, N. Y.

Marine sparkplug with built-in resistor cuts down interference in boat and ship radio equipment. A 10,000-ohm carbon resistor cancels out lingering spark impulses that create interference. Spark gap setting of 0.040 in. also increases service life of plug by 200% says Auto-Lite, the manufacturer.

Humidity indicator for commercial and industrial use gives readings in 30 sec. Small fan, powered by dry cells, moves air over indicator's wick in sufficient volume to allow quick readings on simplified slide rule. The maker is Weston Electrical Instrument Corp., 617 Frelinghuysen Ave., Newark 5, N. J.

Tubing, made of titanium carbide and tungsten carbide, has inside diameters as small as 0.004 in. The manufacturer is Kennametal Inc., Latrobe, Pa. Outside diameters of both types of tubing range from 1/32 in. to 1/8 in. Tolerances are held to plus and minus 1% of specified size. Company recommends tubing for high-abrasion, high-temperature applications.

How shippers enjoy a broadcast without hearing it!



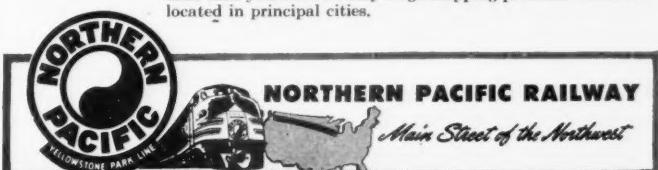
Conductor to engineer: "All black!" (no hot boxes)

If you ship freight, you'll like Northern Pacific's exciting new "radio program"—even though you can't hear it! We're talking about "broadcasts" between the locomotive and caboose of NP freight trains in the Cascade Mountains... via new two-way VHF radio telephone equipment. Why there? Because up in that lofty land of heavy weather, we can greatly expedite movement of your freight by keeping all crewmen constantly in touch with each other... even though they may be a mile apart. Keep tuned for further details...



Engineer to conductor: "OK, we're highballing!"

Our new "end to end" radio communication also means safer handling of your freight. In case of trouble—a hot box or sticking brakes—the engineer is told instantly. Northern Pacific is taking many other important steps to give you better shipping along the Main Street of the Northwest. We're buying new diesel power, building new freight cars, improving our right-of-way, and streamlining our loading-and-unloading procedures. Call on us next time you have a really tough shipping problem—offices located in principal cities.



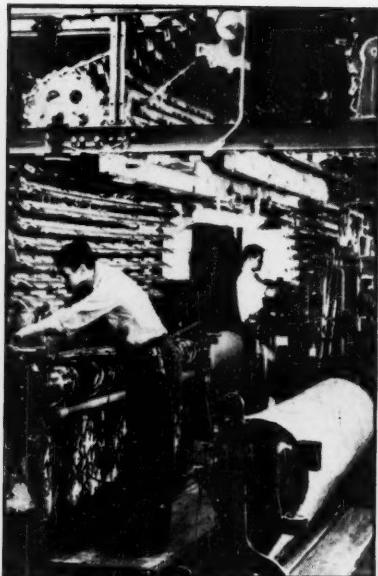
MARKETING



1 Bigelow-Sanford vice-presidents Freyer, Petersen, and Denebrink are chasing the coy customer with a new carpet line stressing low-cost types (the two on left) and with . . .



2 Modernized showrooms. Bigelow's wholesale display rooms got prettied up first. Now the company is urging—and helping—its dealers to streamline their own shops



3 Axminster looms make the new lines less expensively than the Jacquards customarily used for carved carpets. Bigelow learned how in . . .

Cuts the Rug to

In 1943 the Market Research Co. of America completed a survey for the Carpet Institute. Among other things, they found that the carpet industry was "afraid of anything new. It has been operating in the same way for more than 100 years."

"There's always a good reason for doing what you're doing," is the ironic comment of James D. Wise, president of Bigelow-Sanford Carpet Co., Inc. "Otherwise, you wouldn't be doing it."

• **Time for a Change**—But for Wise, that's an epigram not a policy: Bigelow-Sanford today is doing practically nothing the same way it did it when Market Research made its survey.

Actually, that's not too surprising. Only one top executive dates back to 1943 in his present job. When Wise took over the presidency in 1944, the management staff had been allowed to wither away; and he very nearly had to build from the ground up.

• **One Team**—There is no real separation between Bigelow's three vice-presidential posts—sales, headed by Gerald C. Denebrink; manufacturing, Elliott I. Petersen; products, William N. Freyer.

By integrating these departments the



4 Pilot manufacturing plant. Here Bigelow designers also developed sales-appealing patterns in over-all company program that . . .

Fit the Market

company counts on making a product that the sales department can keep on trading for dollars. Last year the company sold more rugs and carpets, dollar-wise, than any competitor.

• **Triple Play**—The new management at Bigelow-Sanford has revamped the entire merchandising philosophy. Even in 1944, Wise was watching for the day of the buyers' market. Now it's here. So Bigelow has:

(1) Worked out new production processes;

(2) Overhauled its marketing machinery;

(3) Cut wholesale prices of its woven carpet line an average of 5%.

• **Prices Down**—The company took No. 3 step just last week. It's a pretty good bet that the rest of the carpet industry will follow suit soon. That has been the history of this year's carpet prices: What one concern does, all do. Most manufacturers gave their price tags a 2% boost last January. In April they lopped off the increase; first-quarter carpet sales had fallen off about 8% from last year's figures. In the second quarter, sales are running about 20% below a year ago. Hence, wholesale price cuts before or during the July market

H & D BOXES

HINDE & DAUCH

Authority on Packaging

Executive Offices:
4901 Decatur St. • Sandusky, Ohio

FACTORIES IN:

Baltimore 12, Md. • Buffalo 6, N. Y. • Chicago 32, Ill. • Chatham, Ontario • Cleveland 2, O. • Detroit 27, Mich. • Gloucester, N. J. • Kansas City 19, Kan. • Hoboken, N. J. • Lester, N. C. • Montreal, Que. • Richmond 12, Va. • St. Louis 15, Mo. • Sandusky, Ohio • Toronto, Ontario • Watertown, Mass.

EVEN CHALK responds to the magic touch of H & D packaging —of making the package a part of the product. This shelf package, several of which are packed in a master shipping box, affords adequate protection for a delicate, brittle substance. Distinctive one-color printing on a white surface is outstanding in eye appeal, promotes the brand name, commands customer attention. Tuck-in tab increases after-use convenience.

The Package Prompts the Purchase

BECAUSE THIS H & D box reduces packaging costs approximately 50% in addition to providing better product protection than the previous method of packaging, it is definitely part of the product. The economies it effects are felt by manufacturer, dealer and consumer. The box, developed in the H & D Package Laboratory, is engineered to the product, with no excess weight or bulk.



THIS CORRUGATED H & D Prepak™ is a major factor in the sales success of the product. The box is factory-packed to eliminate repacking and wrapping by the retailer, thereby reducing sales costs. The Prepak™ is also a colorful counter or window display that stops traffic and increases sales. It is printed in 2 colors on lawn-green linen finish corrugated board. If your product can be packed in "units" or "sets," consider H & D Prepak™—the most economical way to pack and sell retail merchandise.



**Know how little it costs
to have real air conditioning
in your home or office?**

**Ask your Frigidaire Dealer about the
new low prices on compact, easily-installed
Frigidaire Room Air Conditioners**



You'll be surprised how easy it is—at Frigidaire's wonderful new low prices—to have the cool, clean comfort of air conditioning in your home or office! You'll be surprised, too, at how quickly and simply one of these compact, quiet-running Frigidaire Window Conditioners can be installed.

The handsome unit shown above performs the same functions as a big theater-size system—yet, in a matter of minutes, you can have it placed in almost any double-hung window. Then just

plug it into any standard A.C. outlet. It's powered by Frigidaire's famous Meter-Miser—simplest cold-making mechanism ever built—with a special 5-Year Warranty. Available in two sizes.

Your Frigidaire Dealer will be glad to demonstrate these sturdy, good-looking conditioners for you. Find his name in the Classified Phone Book, under "Air Conditioning" or "Refrigeration Equipment." Or write Frigidaire Division of General Motors, Dayton 1, Ohio. (In Canada, Leaside 12, Ont.)

FRIGIDAIRE Room Air Conditioners



Frigidaire Store-Type Conditioners—now at new low prices—are large-capacity systems, completely self-contained in smartly modern, two-tone gray cabinets.



Frigidaire Floor-Type Conditioners can be used singly or in multiple, with a remotely installed compressor—are available with heating coil for year-round service.

Over 400 Frigidaire commercial refrigeration and air conditioning products—most complete line in the industry

won't come as a surprise to the trade. • **New Lines**—If price cuts are industrywide, they give no company a competitive edge. So Bigelow isn't counting on price alone to pull the customers in. This July Bigelow is pinning a big chunk of its hopes on five new carpets in its line. Actually, some of the new items have been sold on a small scale before, more or less as a marketing test. Now, they are being pushed for all they're worth.

Bigelow calls its five new lines Cushionlok, Corday, Monticello, Stockbridge, and Chorale.

• **Rug Is Born**—The story of the Chorale line gives a good picture of how Bigelow's new approach works. Last year, Bigelow carried a line of rugs called Serenade, which retailed at a suggested price of \$13.95 a sq. yd. This is a so-called "carved" or "sculptured" carpet, which has two levels of pile. The line has to be woven on a Jacquard loom. And Jacquard-loom weaving is expensive.

Customers liked Serenade, but a lot of them found the price too high. So Bigelow went to work to devise a less expensive carpet—one that would look and act something like Serenade.

• **Pseudo-Serenade**—This year's Chorale line seemed to fill the bill. Chorale is made on an Axminster loom—which is less expensive to operate than a Jacquard loom. And the Chorale line, which appears to be a two-level rug, is actually woven all on one level, partly from hard-twist yarn, partly from soft-twist. The woven rug is subjected to a special Bigelow treatment that causes the hard-twist yarns to pull down close to the carpet backing; the soft-twist yarns, however, don't contract. So a one-level carpet has a two-level, sculptured effect. The suggested retail price for Chorale: \$10.95 a sq. yd.—\$3 less than for Serenade.

• **Still Lower**—For an even lower income bracket, Bigelow has a third carpet this year, called Fervak. Fervak is woven on an Axminster loom, entirely from soft-twist yarns. It comes off the loom as a one-level carpet—but a shadowy woven pattern gives it a sculptured look.

(Bigelow taps income groups lower than that, too. Through Glamorg, a 9x12-ft., nonwoven, wool-face, printed floor covering, Bigelow gets into a market between the lowest price woven rugs and felt-base floor coverings.

• **Two Techniques**—The Serenade-like Chorale and Fervak lines demonstrate two ways Bigelow is trying to keep the profits rosy. One is to cut production costs to a minimum—finding cheaper ways to turn out a similar product. The other is to bear down on the promotion of the lower-price lines.

• **Marketing Pressure**—In building up its marketing steam, Bigelow-Sanford



What price liberty?

IT was Daniel Webster who said, "God grants liberty only to those who love it and are always ready to guard and defend it."

Today in our yearning for "security", we are inclined to forget about that "liberty" for which this old bell rang out. The two are not synonymous. When we permit a benevolent government to assume more and more responsibility for housing, feeding, hospitalizing, and even entertaining our citi-

zens, we must in return expect to surrender more and more of our personal rights and liberties.

Actually, the only security any man can enjoy with liberty is the security he earns through his own initiative, resourcefulness and productivity. As community leaders, it is our responsibility to help our fellow citizens realize that for the delusion of government-guaranteed security they are sacrificing liberty.

The Youngstown Sheet and Tube Company

General Offices--Youngstown 1, Ohio

Export Offices--500 Fifth Avenue, New York

MANUFACTURERS OF CARBON, ALLOY AND YOLOY STEELS

ELECTROLYTIC TIN PLATE - COKE TIN PLATE - WIRE - COLD FINISHED CARBON AND ALLOY BARS - PIPE AND TUBULAR PRODUCTS - CONDUIT - RODS - SHEETS - PLATES - BARS - RAILROAD TRACK SPIKES.

1 TON 1/2 TON 1/4 TON

300 LB

**Sets new records
for Low-Cost
Maintenance**

Yes, records show Keller Air Hoists are economy hoists for day-in and day-out lifting. Built-in durability.

Housing: aluminum alloy casting; steel hooks and chains. Operation requires 40% less air than other hoists of equivalent capacities.

**AIR OPERATED
...LIGHT WEIGHT**

One man can carry, hang, and operate the Keller Air Hoist. Variable-speed feature gives positive control in lifting, lowering loads in foundry, shop, and shipping room. 30-lb model lifts $\frac{1}{2}$ ton at 17 ft per minute. Send for data, or

Ask for Demonstration
in Your Own Shop



**KELLER
AIR HOIST**

KELLER TOOL COMPANY
GRAND HAVEN, MICHIGAN

SERVICE IS A SIGNIFICANT WORD AT

The

BILTMORE

Based on a thorough understanding of your needs and wishes, maintained through a sincere desire to provide every satisfaction, service has become a cherished Biltmore tradition. With the comfort afforded by The Biltmore's attractive modern rooms and suites and the convenience extended by The Biltmore's accessibility, Biltmore service makes a New York visit a memorable event.



*One of the World's
Great Hotels*



John G. Hosman
Manager

Write for Illustrated Folder

The BILTMORE

Madison Avenue at 43rd Street
New York 17

Direct Elevator to Grand Central Terminal

Frank W. Regan, President

ran head on into styling problems. One is replacement sales. It's not so easy to convince a housewife that her 1939 carpet is as out-of-date as her 1939 automobile. Yet, that's what Bigelow is trying to do—by bringing out appealing new designs that are so different they stamp the old ones as definitely outdated.

The second style problem is a regional one. People in different parts of the U.S. go for different types of patterns. In Pittsburgh, for example, burgundy carpets are the thing (although Bigelow has noticed a slightly bigger demand for lighter colored carpets since the smoke-abatement law went into effect). The West Coast goes for a carved pattern. In the Southwest, you can sell pastel carpets; New York State likes flowered designs. This year Bigelow thinks it has some patterns in its line that retail customers all over the country will like.

Bigelow has found out that it takes more than a good carpet to bring in maximum sales. So Bigelow has developed an extensive sales and service program.

• **Showroom Allure**—One new marketing tactic is to glamorize showrooms. Since the war's end, almost all of the company's 28 wholesale showrooms have been modernized. Bigelow hopes retailers will get some ideas from these modern display and merchandising techniques. The company's Store Planning Service will help interested dealers dress up their own shops.

• **Three Schools**—Bigelow's three training schools are another integral part of the selling program. For a little more than a year, Bigelow has run a training school for dealers' salesmen in its Amsterdam (N.Y.) plant. In Thompsonville, Conn., the company operates a two-year-old school of carpet installation. And early this year Bigelow opened a third school (in New York City) to teach on-the-floor cleaning of carpets.

Bigelow got the idea for the cleaning school back in 1945 when a dealer asked "How do you clean a carpet without taking it off the floor?" Bigelow had a simple answer: "We don't know." But the company decided to find out right away.

The result of this study was a compound called Karpet-Kare. Bigelow licenses various dealers to use it.

• **Too Many Patterns**—Another change in the Bigelow operation: It has chopped 10,049 items from its books. In prewar days, Bigelow handled 729 patterns and colors, each in various widths and sizes. The result: The company had 10,705 different items to keep in stock—and to keep on the books.

Since the war, Bigelow has pared the number of colors and patterns to 226. After you add in the different sizes and

widths, the company still handles only 656 items—a reduction of 94%.

• **Too Many Dealers**—Along with all the other changes, Bigelow has gone to the heart of its sales operation and revised its dealer setup. A survey showed that a mere 17.4% of its dealers were handling 80% of Bigelow's business. That meant that Bigelow was selling to a lot of dealers (53.7% of the accounts on the books) who handled less than \$1,000 worth of business a year. In 1941, those dealers accounted for only 3.8% of the company's sales volume.

So: Bigelow dropped 5,000 dealers, went in for selective distribution.

The next step was to narrow the number of outlets further; the ultimate aim was to have a representation of dealers broad enough to cover every market—but narrow enough to make a dealership look like a good thing. In other words, Bigelow didn't want every big store in a city handling its products; that might discourage any of them from promoting the Bigelow line. Store A, for example, might figure that its carpet ads were merely sending people to buy Bigelow carpets in Stores B or C, if they happened to be nearer the consumer's home.

Packard Display Room Will Help Dealers Sell

Auto company sales departments are watching with more than ordinary interest a construction project at Atlanta. That's where Packard Motor Car Co. will soon let contracts for a combination warehouse, zone headquarters, and display room.

• **Salesroom, Too**—The reason for the interest: Trade gossip is that Packard is going to do some experimenting in the new establishment. Often, of course, factory district offices function also as warehouses and distribution centers. At Atlanta, however, the report is that the new center will be an elaborate salesroom as well, displaying virtually all types and colors of the Packard line.

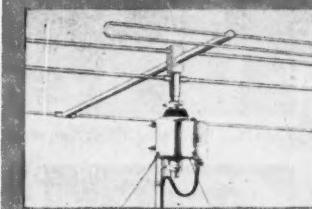
That way, dealers from the adjoining areas could bring their prospects in to the central display whenever they wanted to show off a car—with more than catalog pages to work from. And, since Packard is putting a warehouse in the area anyway, that reduces the extra expenses of making such a display available for dealers.

• **More Coming?**—Packard already has a somewhat similar operation at Chicago. The company itself does not admit that there is anything unusual in its Atlanta plans. Competitors, however, hearing that a score of such centers may be built if the southeastern plan succeeds, are watching closely.

It pays to use your custom molder's know-how

say men who make television "beaming" devices

No. 7 in a series on Plastics Skill at Work . . .



PROJECT: Two-piece control case to house transformer for antenna rotator.

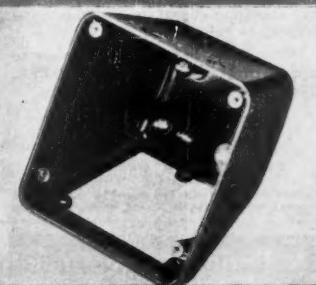
CUSTOMER: Alliance Manufacturing Co., Alliance, Ohio.

MOLDER: Evans-Winter-Hebb Inc.

MATERIAL: Economical general-purpose Durez phenolic plastic.



SPEED: Two-cavity compression mold with hydraulic cylinders for coreing holes maintains high output. Loose wedges form light bulb socket hole in front panel.



ECONOMY: Molder eliminates many operations by producing electronic control case and face plate with lugs, bosses, cutouts, and inserts all "molded-in."

At first glance this control box looked like a straightforward job of molding. Yet a small design change suggested by the molder points up a fact that is gaining wide recognition these days...

The earlier you call in a first-class plastics man, the more you stand to gain by his experience.

In the *Tenna-Rotor*, Alliance Mfg. had developed a motor-driven TV and FM antenna rotation device that selects the exact compass point for optimum reception... strong signals, clear pictures. Armchair control was provided by a three-position switch in an attractive Durez plastic case.

Examining the blueprints, Evans-

Winter-Hebb molding men saw eight tapped holes for mounting the transformer in the top of the control box. To provide a stronger and more durable and rigid mounting, they suggested that only four screw posts be used, and that these be molded into the Durez. Results: one, a more serviceable product, and two, a simplified assembly.

For specialized experience with phenolics, the most versatile of all plastics, your molder will welcome his Durez field man in your planning sessions. Call on us without obligation. We'll gladly serve you and him.

Durez Plastics & Chemicals, Inc.,
406 Walck Rd., N. Tonawanda, N. Y.



PHENOLIC PLASTICS THAT FIT THE JOB

EVEN THE CHECK
WINS A SMILE



In times like these, profit by STOLPER SERVICE . . . with 41 years' experience in the design and fabrication of sheet metal parts and assemblies, exclusively to customer requirements.

Stolper service is notable . . . for its creative character . . . new ideas . . . versatility . . . the customers it keeps. To your plant it will add complete facilities for the modern design and fabrication of any sheet metal part or assembly . . . add nothing to your payroll.

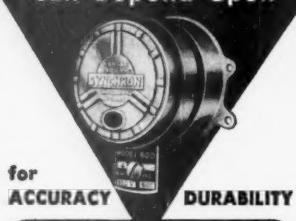
Write, wire, or phone us. Be sure to ask for our FREE booklet, "STOLPER, Your Sheet Metal Department".

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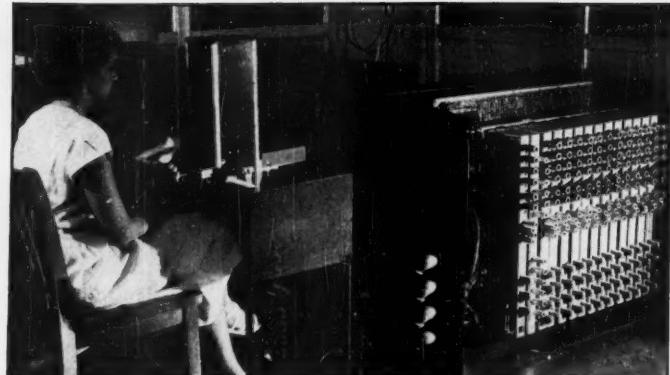
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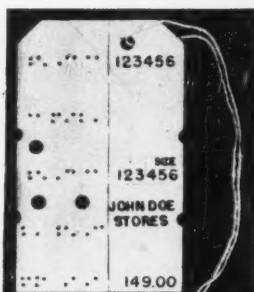
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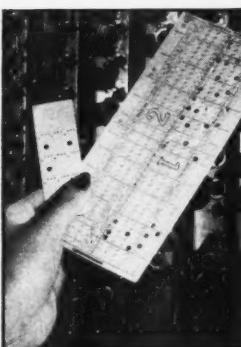
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ELECTRONIC MACHINE, developed by Potter Instrument Co., New York, reads . . .



. . . Sales tag, translates it . . .



. . . To standard punch cards . . .



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Price-Tag Accounting, Automatically

Punch-card accounting has been saving a lot of time and money for a lot of retailers. But it has had one big choke-point: Every transaction has had to be translated—by hand—into a punched card.

Now the price tags themselves can do that job automatically.

- **Electronic Reader**—The machine that does it is called the Electronic Price Tag Reader. Potter Instrument Co., Flush-

ing, N. Y., demonstrated it publicly for the first time last week. Here's how it works:

The special price tags are prepared on a machine designed by A. Kimball Co., New York. It makes a one-piece, two-section tag; the pertinent information is simultaneously recorded in print on one section, in coded perforations on the other.

When a sale is made, the clerk de-



What should you expect from your group insurance?

If correctly planned it can be the best and most economical way to solve many employee relations problems.

What do we mean by correct planning?

A plan that is really geared to meet *your* Company's requirements and objectives, and one that is flexible enough to allow change with changing conditions.

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Select an insurance company with wide group experience, but also consider carefully the qualifications and experience of the men who will work directly with you for that company.

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*Listing on Request



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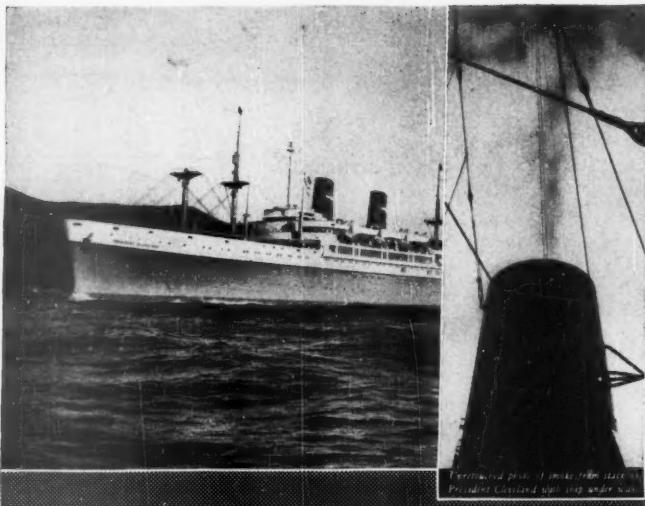
For careful, competent, individual study of your situation, investigate Connecticut General's Protected Pay Envelope Plan. It is equally applicable to the needs of large or small organizations. It provides all forms of group protection: life, accident and sickness, hospital, surgical and medical expense insurance and pension plans, singly or in combination.

Connecticut General has been writing group insurance for 36 of its 84 years in business . . . and was one of the first to enter this field. But beyond this the particularly careful selection and training of Connecticut General men assures you of unusually well qualified men to handle your problems in *your* territory.

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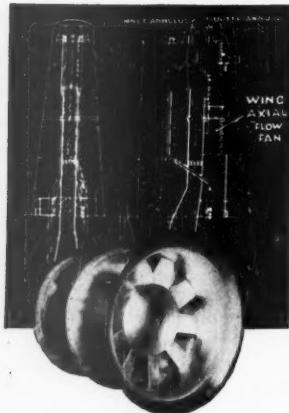
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Smoke gets in your eyes? Not in this ship



The great new luxury liners President Cleveland and President Wilson use many Wingfoil Axial Flow Fans, but the most remarkable installation on each of these ships is a 48 inch diameter Wingfoil Axial Flow Fan delivering 35,000 c.f.m. at 4" static pressure, the function of which is to draw air from the engine room and force it at high velocity up through an annular space surrounding the stack. The smoke emerging from the stack is enveloped in this annulus, where the high velocity air combines with it to carry it well up into the air and prevent any soot from falling upon the decks between the stacks and the stern of the ship.

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WINGFOIL
•FANS•

taches the perforated section and sends it to a central collecting point. These stubs are then run through the Potter electronic reader, which transfers the information onto standard Remington Rand or International Business Machine punch cards. Finally, the standard business machines translate the punch cards into any accounting or record form you need.

• **Saving**—At the moment, Potter runs its electronic tag-reader manually. Used that way, says John J. Wild, Potter's sales manager, one girl can do the job of 10 key-punch operators. But if you put a magazine feed on it, he reports, the machine can do the work of 20 operators.

• **Applications**—Wild thinks the machine is ideally suited to the accounting operations of a large retail chain. The tags can be attached in the central distribution office before the merchandise is shipped; the perforated sections can easily be shipped to the chain's home office. Word in the trade has it that the Potter machine was designed with an eye on Sears Roebuck, will be used in Sears stores.

But the machine also can be used, Wild says, for factory inventory control, for all types of billing, for airline and railroad passenger accounting, and in many other applications.

MARKETING BRIEFS

Records retailing at 45¢ (plus tax) will be marketed by Columbia Records under a new label: Harmony. Wright Record Corp., Meriden, Conn., has exclusive distribution rights.

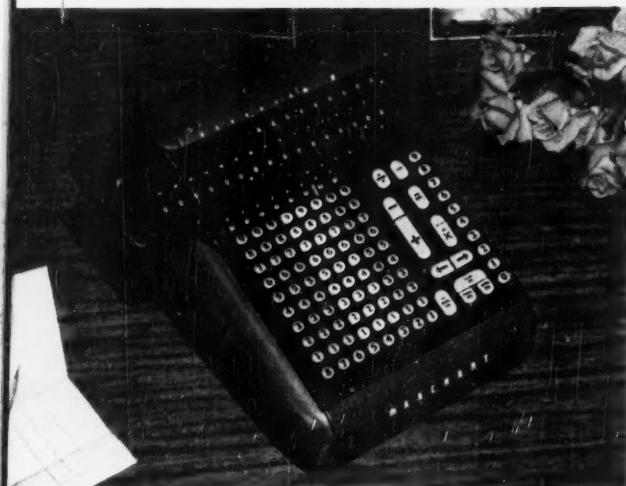
F. & R. Lazarus Co. has sold its \$1.5-million bulk-service building (BW—Apr. 9 '49, p42) to John Hancock Mutual Life for an undisclosed amount. Lazarus has a long-term lease.

Aid to food retailers: The U. S. Fish & Wildlife Service has two 16-mm films in color on "Retailing Fish" and "Filleting and Packaging Fish." Retailing groups can get them from the bureau's Division of Information.

Retail tea sales by the Jewel Tea Co. for the month ended May 21 were \$13.1-million, up 12.2% over the same period in 1948. And sales for the first five months of 1949 totaled \$63.6-million, a \$6.9-million gain over last year.

Guinness stout for the U. S. market will now be brewed here. Arthur Guinness Sons & Co. has purchased the Long Island City (N. Y.) brewery of E. & J. Burke, distributor of the Dublin company's brews for 80 years. Burke will carry on as prime distributor.

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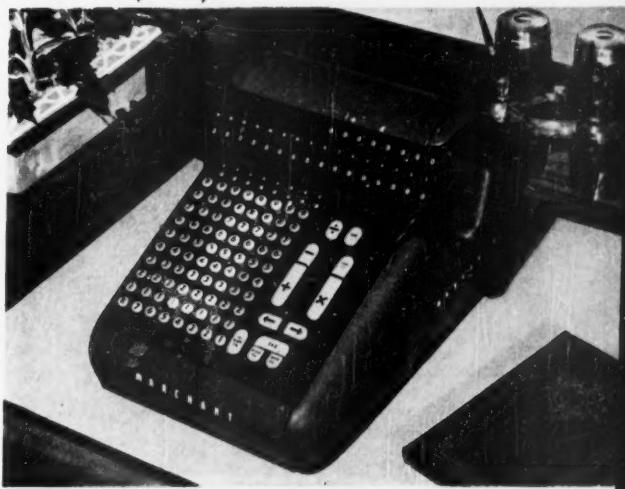
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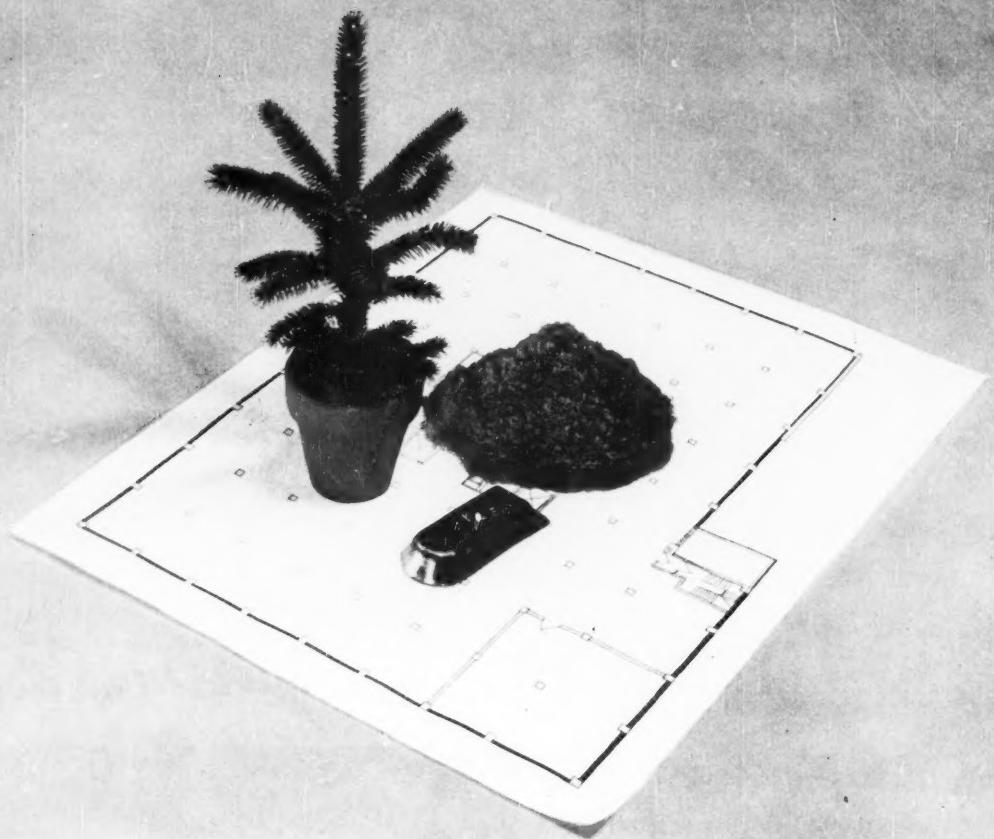
Please send me free information about the new *Figuremasters*.

I am interested in the Fully Automatic the Semi-Automatic

Name _____

Address _____

City _____ State _____



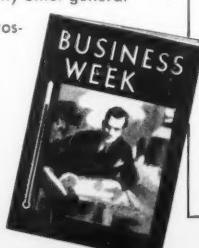
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Globe-Wernicke Co.
International Business Machines Corp.
Marchant Calculating Machine Co.
Monroe Calculating Machine Co., Inc.
Remington Rand, Inc.
Todd Co., Inc., The
Underwood Corp.

*Source: Publishers' Information Bureau Analysis

FINANCE

RFC Business—Loan Applications

Month	Number	Total of Loans Sought (In Thousands of Dollars)	Average of Loan Requests
1948			
January	591	\$25,210	\$43
February	659	48,126	73
March	781	58,137	74
Quarterly Average	677	43,824	65
April	744	54,250	73
May	632	88,173	140
June	618	63,194	102
Quarterly Average	665	68,539	103
July	549	36,807	67
August	563	56,684	101
September	584	108,478	186
Quarterly Average	565	67,923	119
October	523	72,226	138
November	568	59,904	105
December	494	68,768	139
Quarterly Average	528	66,966	127
1949			
January	568	139,406	245
*February	790	84,616	107
March	906	145,948	160
Quarterly Average	755	123,090	163
April	817	129,732	159

* Totals exclude \$360-million loan application from individual desiring to build steel plant.

Plenty of Business for RFC

Tighter private credit, tougher going for industry are reflected in sharp rise in number and amount of loan requests this year. Most applicants fairly sound; three-fourths of them get help.

Business is booming—for the Reconstruction Finance Corp. Companies that can no longer finance themselves through regular credit channels have been hurrying to RFC's door. Most of them are getting loans. So RFC's volume is way out front of its earlier post-war business.

• **More and Bigger**—Through the first four months of 1949 (table, above) applications for RFC loans averaged 770 a month—about 26% higher than the monthly average for all 1948. The dollar rise has been even sharper. For the whole of 1948, the total of loans applied for came to \$740-million; that's \$61.7-million a month. This year the total had climbed to around \$500-mil-

lion by the end of April—or about \$125-million a month.

Right now RFC is granting about three-fourths of the applications. This is an abnormally high proportion—but at this point on the business cycle, a large share of the would-be borrowers represent what would normally be pretty fair risks, temporarily strapped for capital.

• **Good and Bad**—These loans should mean good business for RFC and more profits for the government, which put up the corporation's \$2-billion capital. Actually, of course, they are a sign that more and more enterprises are finding the going tough.

RFC was set up by Congress back in

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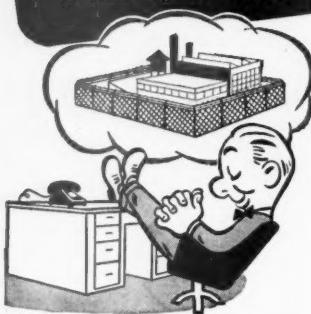


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1932 to act only as a lender of last resort. The corporation was specifically told not to lend to anyone who could get the money elsewhere; to qualify, an applicant has to show that he has tried to get a loan from his banker and has been turned down. So when RFC makes a business loan today, it implies that no one else will touch it.

• **Playing Safe**—On some of the applicants, the private lenders are just playing safe—and smart. A lot of businesses that mushroomed after the war, and rode high during the boom, are in no condition to live competitively. Money loaned now would soon evaporate. Even RFC is steering clear of these.

• **Money Needed**—But just because a business is seeking RFC aid, it isn't necessarily heading into bankruptcy. Some firms in otherwise robust financial condition want new capital for legitimate expansion. And they don't think they can get it by security flotation—the market being what it is today.

Other firms have permitted growing inventories to tie up too much working capital. Though by no means insolvent, they are in urgent need of cash. But more and more the banks are saying no to their requests.

• **Harder to Get**—Commercial banks these days are refusing loans—even to customers of long standing—for a variety of reasons. Finance companies are doing a careful job of screening, too.

In some cases, of course, the banks just don't like the color of the collateral offered; in others, they may reject on technical grounds or as a matter of policy.

Here are some of the reasons why concerns that are basically fairly sound and that have bona fide money needs aren't getting the credit they want from banks:

(1) The maturities requested may be too long. Many banks, very understandably, don't want to tie up cash these days for the three to five years that construction loans usually require.

(2) Some banks won't touch "permanent capital" loans at all; others don't like to go heavily into inventory lending.

(3) A bank's legal loan limit for, say, real estate may already have been reached.

(4) A bank may have no confidence in the prospects of the enterprise—though it may find no fault with the collateral.

• **Less Choosy**—The RFC isn't so choosy about the loans it makes. It can lend any amount to anyone for any purpose for as long as 10 years—at 4%.

By direction of Congress—which did not want the corporation to subsidize business—borrowers must be able to put up some pretty fair collateral. First and chattel mortgages, receivables, or ware-

house receipts are acceptable; second mortgages or patent rights get consideration only as supplements.

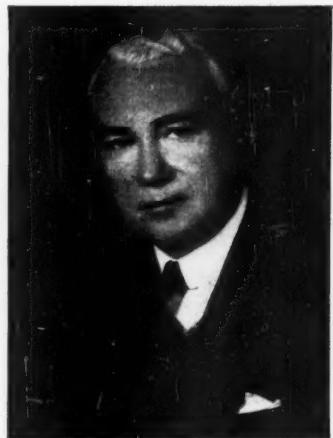
This concern for collateral has been the main factor in keeping RFC's losses astonishingly low. After allowance for losses, the agency has earned \$575-million over and above operating costs in the 17 years of its operation.

• **Small Customers**—Naturally, most of RFC's customers are small—simply because there are more corporate midgets than giants. Since the companies are small, their needs are small. That's why 90% of the loans RFC makes are for \$100,000 or less; 65% are for less than \$25,000; 25% are under \$5,000.

How do RFC borrowers use the money? To increase their working capital, mainly. Inventory building, plant expansion, and the purchase of equipment come next. RFC officials prefer to make such "productive" loans, rather than to lend money for refunding a company's old debts. But it does make refunding loans (on satisfactory collateral) to help companies if figures are fundamentally sound.

• **Who Borrows**—Over the years, nearly every type of business has come to RFC for loans. In the past, service, retail, and construction enterprises have been the most numerous borrowers.

But since the war, the pattern has changed. The types of business that



International Banker

A native American takes over the New York agency of the Royal Bank of Canada next week when Edward C. Holahan succeeds Norman G. Hart. Holahan, 56, has been with the Royal Bank since 1911. His new job: to handle the Canadian financial affairs of U.S. firms; persuade them to let the Royal help them out in Latin America. Almost all of Royal's 62 foreign branches are in Latin America.

have been most hard up are obviously those that have already borne the brunt of the current "readjustment."

Textile manufacturers were the first to swarm to the RFC for help back in 1947—and they still have some problems on their hands. Next came independent meat packers who were caught with high-cost inventory when farm prices broke. Now, small canners and bottlers seem to be having trouble.

• Sampling—Here's a sampling of typical firms who recently brought their problems to RFC, and got some help:

Carthage Hydrocol, Inc.—RFC has lent Carthage \$18.5-million for 10 years for construction of a plant to convert natural gas into gasoline (BW-Jan. 24 '48, p21). The company is owned by a group of Texas oil refiners who have chipped in a like amount plus \$5-million for working capital. Carthage had found that it couldn't raise the money reasonably by security flotation.

Hayward Woolen Co.—This Massachusetts textile mill has borrowed \$1.2-million from RFC for five years. About \$700,000 will be used to retire bank and factor debt; the rest will go for working capital. The local bank that had been financing Hayward refused to extend its loan. This mill, which employs some 400, was closed almost completely a few weeks ago; it hopes to open up again, shortly.

Newark Industries, Inc.—RFC has lent this Ohio manufacturer of composition building materials \$750,000 for five years. About \$400,000 is for an addition to its plant; the rest will go to working capital. Local banks weren't in a position to make the company a loan of this type, and the company was too small to issue stocks or bonds.

Millar Bros. & Co.—This Philadelphia meat packer has received a \$350,000, five-year RFC loan for debt retirement. About \$56,000 will be used to pay off a first mortgage on plant; \$21,000 will retire a lien on equipment; the rest will go to meet notes payable.

Del Mar Canning Co.—This Oregon fish cannery got a five-year loan of \$200,000 for working-capital purposes. Local banks, worried about large inventories, declined to make such a long-term loan.

Paul B. Sloat—RFC has lent Sloat, who trades as the Century Vault Co., Wyndmoor, Pa., \$85,000 for seven years. He plans to use \$4,000 to meet a bank loan; \$14,000 to clean up notes payable; \$50,000 to pay off a mortgage on his plant; \$16,000 for taxes. He will add the remaining \$1,000 to working capital.

Lamar V. Bobbitt—Bobbitt, who does business as Lamar's drugs, in Vidalia, Ga., got a four-year loan for \$10,000. He will use \$4,000 to pay off a bank that refused to extend his note. Another \$5,700 will pay off wholesalers. The rest will go for working capital.

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St. Louis Opposition Fights Exchange Merger

The plan to merge midwestern stock exchanges has struck a snag. A lot of St. Louis financial people aren't happy about seeing their stock exchange go to Chicago. So they have set a movement on foot to get the St. Louis exchange to reconsider the recent vote in which its members favored the merger 28 to 6 (BW-Jun.4'49.p88).

• **Opponents**—The move is led by: (1) some of the St. Louis brokers who also have seats on the New York Stock Exchange; (2) St. Louis banks that act as transfer agents and registrars for stock listed on the St. Louis exchange. Now the opponents of the merger are also working on the 35 companies who list on the local exchange, trying to keep them from going to Chicago.

Last week the anti-merger group got new support from George C. Davis, president of the city chamber of commerce and a retired railroad man. Writing for himself and not for the chamber, Davis told the presidents of the 35 listed corporations that the merger was "unthinkable."

• **Losers**—Davis conceded that the shift to Chicago might help some St. Louis brokers who would then be able to trade in stocks they aren't able to handle on the local exchange. But he insists that St. Louis banks and companies are going to suffer. His reasons: (1) St. Louis banks would probably lose the business of those local companies whose stocks became active on the Chicago exchange; (2) those companies not listed on the Chicago exchange, or whose stock wasn't active there, would have a narrower market than at present.

INSURANCE RATE FIGHT

Fifty-two fire-insurance companies are fighting the rate cuts made recently by the Insurance Co. of North America in the Philadelphia and Pittsburgh areas (BW-May28'49.p24).

The cuts have touched off an investigation by State Insurance Commissioner James F. Malone, Jr., of all fire-insurance rates in Pennsylvania. He wants to see if they're too high.

The 52 companies last week asked Malone for another hearing. They want to show him evidence that they think will change his mind about the rate cuts. Malone has set the hearing for next week. But he says his investigation of rates will go on anyway.

One of the 52 companies last week asked a state court to overrule Malone's approval of the North America rate cuts. It also asked that the court forbid Malone to allow about a dozen other fire-insurance companies to follow the North America's example.

FINANCE BRIEFS

Joseph W. Frazer is no longer a big Kaiser-Frazer stockholder. He has sold 9,700 shares of common since he moved upstairs from president to board vice-chairman (BW—Apr. 24, p21). That cuts his direct holdings to only 900 shares.

Tax payments by life-insurance companies came to \$162-million last year—\$5-million more than 1947, \$25-million more than 1940. Their realty-tax payments were \$19-million; nonrealty and local, \$132-million; federal, \$4-million.

Celotex Corp. net profits of \$507,000 during the six months ended Apr. 30 nosedived 85% under last year. So the company has cut its quarterly dividend on common from 50¢ to 25¢ a share. A drop of 33% in sales did it.

Commercial Credit Corp. (BW—Apr. 23 '49, p94) has just sold Prudential \$25-million 15-year 3.95% subordinated unsecured notes.

A fifth of Sears, Roebuck stock outstanding is owned by the Sears Employees' Savings & Profit Sharing Fund. That's more than 4.6-million shares.

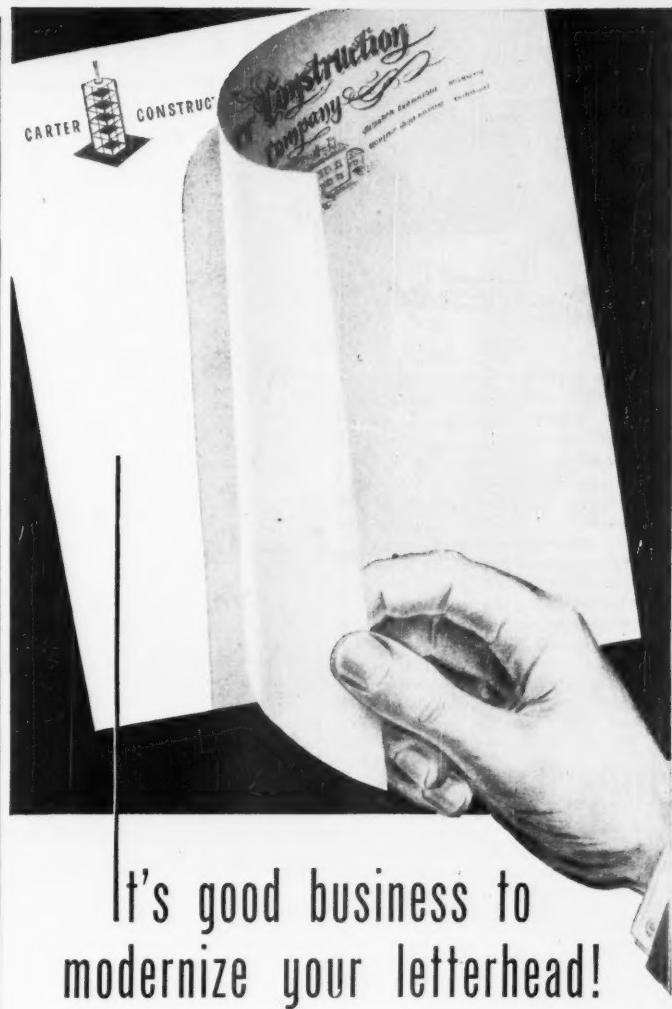
U. S. fire losses in May ran 8.6% under the 1948 level, says the National Board of Fire Underwriters. The January-May drop was even bigger: 10.4%.

Bank business loans are down again for the 21st straight week. The June 8 total was \$13.4-billion—14.1% under the record high of last December, 6% under a year ago.

New superhighway bonds: (1) Some \$50-million of new Pennsylvania Turnpike bonds will be sold soon to pay for its extension to the Ohio border; (2) the New Jersey Turnpike Authority may also sell \$150-million or more in new bonds to finance a 130-mile superhighway.

Hartford (Conn.) bank merger will produce New England's fourth largest bank. Principals: Hartford National Bank and First National. The new Hartford National will start with more than \$13-million of capital funds, more than \$180-million of resources.

Interim rate increases of 8% to 10% have been received by New York Telephone Co. They will boost annual revenues by about \$26-million. Meanwhile, the N. Y. Public Service Commission is considering the company's petition for permanent 15% rate hike.



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Many letters going through the mails today are "dated" in more ways than one. How are yours? If your business stationery isn't attractively modern, ask your printer for advice. He will gladly show you how to bring your letterhead up-to-date. And ask him to show you samples of **pre-tested Nekoosa Bond**—the modern business paper that makes **any** letterhead look better!



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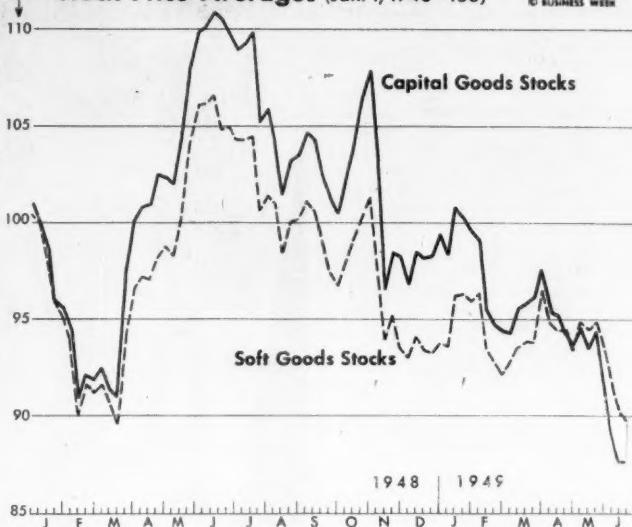
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THE MARKETS

Stock Price Averages (Jan. 1, 1948=100)

Date: Standard & Poor's Corp.
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Stocks Catch Up With Facts

The market seems to be following general business trends, not forecasting them. A current instance is the belated drop in capital-goods shares in relation to soft-goods stocks.

Stock prices seem to have been following business developments rather than forecasting them. A lot of people have suspected that, ever since the market went into its 1946 tailspin, the spin that completely missed the record prosperity of 1947 and 1948. And the suspicion seems to be confirmed by the action of the heavy- and soft-goods stocks over the past year (chart).

• **Just a Mirror**—It is an old truism that soft-goods industries relapse first in any recession. Later, the hard-goods and

capital-equipment lines go down—sometimes much faster and farther.

But the capital-goods stocks didn't forecast any such drop in 1948 and early 1949. To be sure, there was a soft-goods recession on; and capital-goods lines still were going great guns. But stock prices just mirrored the facts as they then were. They seemed to make little effort to anticipate what has actually happened in recent months.

• **Finally**—Not until March did the capital-goods shares fall from their high esteem. But when they did, they came down with a bang. It was the old story of the heavy lines being prince-or-pauper industries: investors sold their shares on the assumption that earnings on the heavy-goods stocks would drop much more sharply than on the soft.

Prices of the steel stocks reflect this. Leading steel shares have sold down anywhere from 17% to 45% from their 1949 highs.

• **Market Rise**—Of course, when the averages broke through their 1946-49 bear market lows (BW—Jun. 8 '49, p104), all sections of the list went down

Security Price Averages

	This Week	Week Ago	Month Ago	Year Ago
Stocks				
Industrial	137.6	133.0	141.5	165.1
Railroad	36.1	34.6	35.3	51.3
Utility	70.0	69.5	72.0	73.7
Bonds				
Industrial	95.7	98.9	95.9	98.6
Railroad	79.8	80.4	81.0	89.8
Utility	96.3	96.5	95.7	95.4

Data: Standard & Poor's Corp.

sharply. But the bulls had some satisfaction: Things didn't go completely to pot after the break-through.

This week, in fact, opened with one of the briskest rises since last March. (It was in sharp contrast to the blue Mondays that have characterized most recent weeks.) The rally, however, had no follow-through.

The bears are inclined to ignore any rally at this point. The May-June drop carried the Dow-Jones industrial average down from 176 to below 162 in a month; an intermediate rally, they reasoned, was to be expected. They still figure that the 150 level will have to be tested before the bulls get a chance to do any triumphant bellowing.

Bear Markets: a Case Study

How long do bear markets last? How far down do they go?

Those are questions that bedevil investors and traders. And there's no simple answer to them.

No two bear markets have ever turned out exactly the same in intensity or in duration. They develop their own characteristics and peculiarities as they move along.

As the tabulation below reveals,

	Industrials				Railroads			
	Dow-Jones Index*	Points Lost	Percent Lost	Weeks Lasted	Dow-Jones Index	Points Lost	Percent Lost	Weeks Lasted
April 1899 to June 1900	76.04	22.36	29.4	64	87.04	14.05	16.1	64
Sept. 1902 to Nov. 1903	67.77	25.62	37.8	59	129.36	40.56	31.4	55
Jan. 1906 to Nov. 1907	103.00	50.00	48.5	95	138.36	56.95	41.2	95
Nov. 1909 to July 1910	100.53	26.91	26.8	36	134.46	28.87	21.5	49
Sept. 1912 to Dec. 1914	94.15	40.98	43.5	116	124.35	36.95	29.7	116
Oct. 1916 to Dec. 1917	110.15	44.20	40.1	56	112.28	41.53	37.0	63
Nov. 1919 to Aug. 1921	119.62	55.72	46.6	94	82.48	16.96	20.6	89
Oct. 1922 to July 1923	103.43	16.52	16.0	41	93.99	17.21	18.3	47
Sept. 1929 to July 1932	381.17	139.95	89.2	149	189.11	175.88	93.3	149
Mar. 1937 to Mar. 1938	194.40	95.45	49.1	55	64.46	45.46	70.5	54
Nov. 1938 to April 1939	158.41	36.97	24.3	21	34.33	10.19	29.8	13
Sept. 1939 to April 1942	121.44	63.00	40.4	137	24.14	12.59	35.1	140
May 1946 to ?	212.50	*47.01	*22.1	*158	68.31	*26.06	*38.1	*156
	*165.49				?	*42.25		

* As of June 20, 1949. Post-May-1946 lows registered to date: Industrials 161.60 June 16, 1949, Railns 41.03 June 13, 1949.



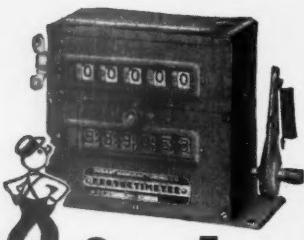
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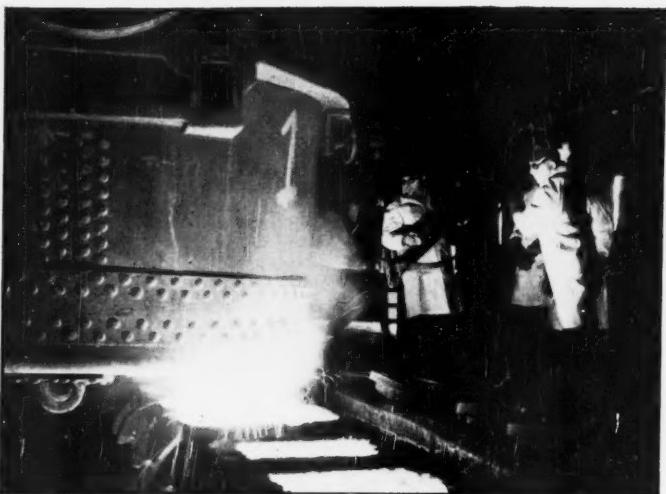
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LABOR



FLOW OF STEEL may be stopped by a C.I.O. steel workers' strike over . . .

Hot Steel Issue: Pensions

C.I.O. strategy is to force the issue of pensions. If Big Steel won't discuss them, the union figures that it could strike over alleged unfair labor practices.

U.S. Steel Corp. and the C.I.O.'s United Steelworkers opened contract talks last week with an exchange of pleasantries and expressions of confidence in steel-labor peace. But most of the goodwill was strictly on the surface. It was quickly obvious that tough and stubborn bargaining lies ahead for Big Steel and its union in these wage-reopening sessions.

After four sweltering days, two things were apparent at midweek:

THE UNION is taking the toughest attitude in years toward the company. And while it talks about its "hope" that a strike won't be necessary, it's telling steel workers to "get ready."

THE COMPANY will put up a stiff fight this year against anything that will force labor costs up another notch.

The company's position is based, of course, on the steel industry's general business letdown (the current operating rate, 84.4%, is the lowest in nine years) and the uncertainty ahead.

• **Murray's View**—The union attitude dates back to last year. A no-strike clause in the union contract put Philip Murray on the spot in 1948 wage negotiations (BW-May'48,p100). Steel workers trailed in getting a pay readjustment—and Philip Murray's left-wing

foes in C.I.O. capitalized on the situation. Murray is currently pretty bitter about what he calls a "disillusioning" experience. He's out to make up for it with a big settlement this year.

The thing he wants most is a hefty pension for all steel workers.

• **Are Pensions Wages?**—Usually, the first few days of contract negotiations are preliminary and routine. But this year, Big Steel bargaining started out with exchanges about as hot as the weather outside on Pittsburgh streets.

An immediate dispute rose over a basic issue: Are pensions a part of wages? The question is important if Big Steel won't bargain voluntarily on retirement-pay for employees. The current contract reopening is limited to discussions "with respect to rates of pay and insurance benefits." If pensions aren't a part of wages, then the demand has no place in 1949 bargaining.

• **Two Positions**—The union contends, of course, that pensions are wages. Hence, Murray argues that the corporation is "morally, legally, and contractually obligated to bargain . . . on pensions as well as other wage proposals."

The company is just as positive that pensions aren't wages. U.S. Steel takes the position that contracts "cannot now be reopened to permit the union to

make a pension demand." It said that "changes in our existing pension arrangements should be handled . . . at the proper time."

The union retaliated with a 2,000-word legal brief citing the Big Steel contract, National Labor Relations Board rulings, and the Inland Steel court decision (BW-Apr.30'49,p112).

• **Pro and Con**—Here's the union argument: The words "wages" and "rates of pay" are used interchangeably in the Big Steel contract. In law, according to the union, the term "wages" usually includes all compensation for services performed. And, in the Inland Steel case, "wages" were interpreted by the courts to include "emoluments of value, like pension and insurance benefits, which may accrue to employees out of their employment relationship."

Steel management has never interpreted wages in the broad sense now used by the union. Nor, says the industry, has the pension issue ever been brought up in labor-management discussions in just that way.

• **Strategy**—Behind the pension issue are other vexing issues, such as a "substantial" wage increase, social-insurance benefits to cost an estimated 8.4¢ per hour, severance pay, and other union demands (BW-Jun.18'49,p110). But currently it looks as though any strike on or after July 16 will be over pensions. That's because the unions have worked out a strategy for a walkout on that issue:

The union would charge the corporation with committing an unfair labor practice by refusing to bargain in good faith on pensions. Such a charge would be based on past NLRB rulings, sustained in court, that pensions are subject to collective bargaining. (Actually, the industry denies there's a parallel between this year's pension dispute and the Inland Steel case. The latter involved the basic issue of whether pensions are a subject for collective bargaining. The present dispute rests solely on whether Big Steel must bargain on pensions during a reopening on wages and social-insurance.)

• **Company Would Pay**—Assuming that the charge is sustained by NLRB, the union could then ask NLRB to order the corporation to pay employees for time lost while on strike. The Taft-Hartley law says that NLRB "may" order such a payment, at its discretion.

Thus, the union might be able to enlist the full power of the government (1) to force bargaining on pensions this year, and (2) possibly to make the corporation pay for the strike—at an estimated cost of \$13-million per day.

• **Murray Would Sign**—Before this strategy can be used, Murray and other officers of the steel union must sign non-Communist affidavits. Murray can and will sign if victory over the steel industry should be at stake.

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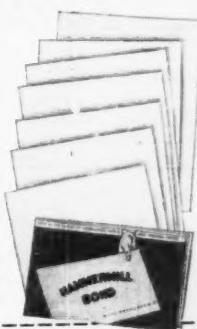
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Wages Stay Put

Textile workers won't ask raise in 1949; union is convinced arbitration clause makes such a demand futile.

C.I.O.'s Textile Workers Union of America took a look this week at conditions in the textile industry. It reread the arbitration clause in its contracts. Then it decided not to ask a raise in September for 120,000 cotton-rayon workers in northern mills.

• **Arbitration Clause**—The contracts run until March, 1950, but have a September reopening date. They also have a provision—common in T.W.U.A. contracts—that unless the parties agree on wage terms during a reopening, union demands go to arbitration.

The last reopening date was in January. That time, the union did ask for an increase—10¢ an hour. Management said it couldn't afford it. The dispute went to arbitration—and management won (BW-Jan. 29 '49, p.80).

• **Reluctant Decision**—Last week the union's northern cotton-rayon wage-policy committee decided that "business conditions in the textile industry have not improved since January." Since "poor business was the reason given by the arbitrator for refusing our earlier request . . . it would be futile for us to make a new demand."

The committee said that "justice must yield, momentarily, to the grim facts. No purpose would be served by the expensive gesture of another losing arbitration."

• **Discouraging**—What are the "grim facts"? A recent union survey of the industry found: generally poor marketing conditions; spotty mill operations; a six-month "slump in textiles" still unchecked; 225,000 unemployed nationally in the industry and many others working only 24 to 32 hours a week.

Research Director Solomon Barkin told the union executive council that between March, 1948, and mid-May, 1949: Production was down 22%; employment, down 17%; manhours worked, down 28%. Barkin said that management's profits are down from 1948's high levels, too.

• **Three in a Row**—This week's announcement that no hike would be sought in September was the third by T.W.U.A. in recent weeks:

IN MAY the union advised 90,000 members of its woolen and worsted divisions not to try to get more pay in August contract reopenings.

TWO WEEKS AGO the union agreed to extend contracts with four major carpet and rug companies for a year without a wage boost. It wrote a Sept. 1 re-

opening date into the pacts covering 25,000 workers—but if there isn't a pickup in business, it plans to let the Sept. 1 date go by.

• **No More Clause?**—One sure result of the decision to forego 1949 wage hikes because of the arbitration clause: Next year the union will insist that wage disputes be excluded from issues which are subject to arbitration during the life of a contract.

Jobs—Not Raises

American Pulley contract with U.E. skips 1949 pay hike. Instead, it sets up a 2,000-day work pool to avert layoffs.

"What good is a wage increase if you lose your job?"

• **Good Question**—A Philadelphia company executive put that question to union contract negotiators two weeks ago. And it wasn't just a bargaining-table maneuver to ward off demands for a wage hike. It paved the way for a serious proposal: Give up a fourth-round wage hike, and we'll promise enough work, outside of regular production, to keep most employees on the payroll.

Local 155 of the United Electrical, Radio & Machine Workers (C.I.O.) agreed. The result is a novel contract between U.E. and American Pulley Co.

The new contract continues wage, hours, and other provisions of the old agreement. It provides for one reopening, on Dec. 31, 1949, to take up wages, hours, and vacations. Otherwise, the contract runs to June 1, 1950.

• **Pool**—The novel feature of the new agreement is in a supplement. This provides that the company will create a pool of 2,000 man-days of work on non-production jobs. The company will tap the pool during slack periods, to avert layoffs. Work will include overhauling and servicing machinery, painting, and general maintenance. It's part of a plant-wide improvement program.

During the first week of the new contract, 40 employees benefited from the plan. They were due for layoffs. Instead, they started working on machinery. While on the job, they draw straight-time pay, which averages \$1.20 per hour.

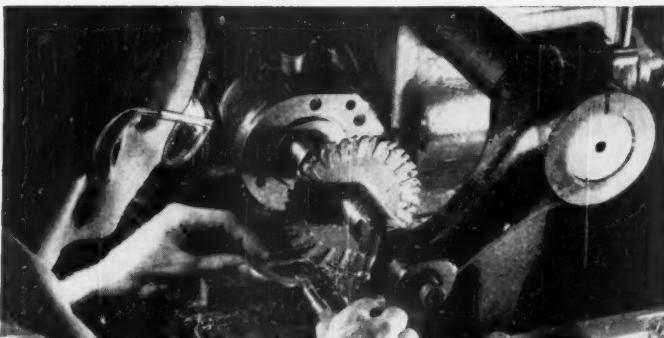
• **Stop Gap**—The union figures that the 2,000 man-day project to improve the plant won't spread jobs far if business stays slack for very long. But the work will help American Pulley employees weather short lulls.

The nonproductive-work plan is expected to cost the company between \$20,000 and \$25,000. The union figures it's the equivalent of a 4¢ to 5¢ pay hike.

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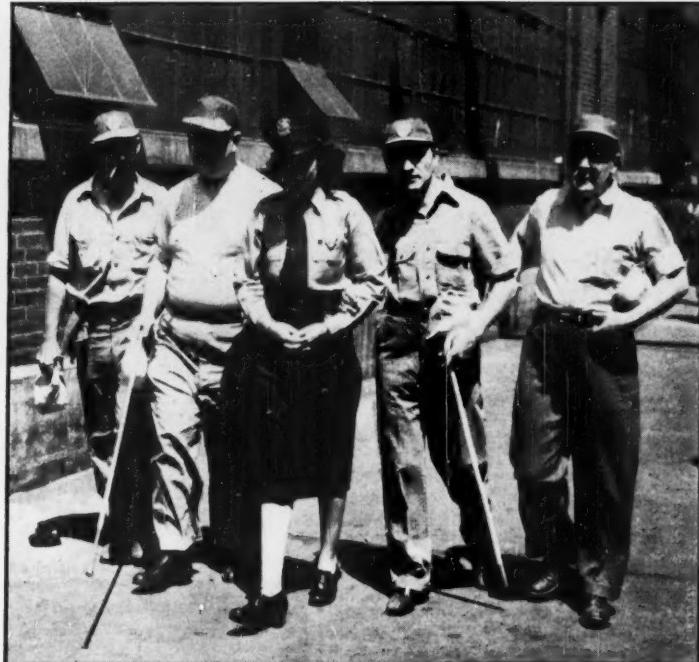
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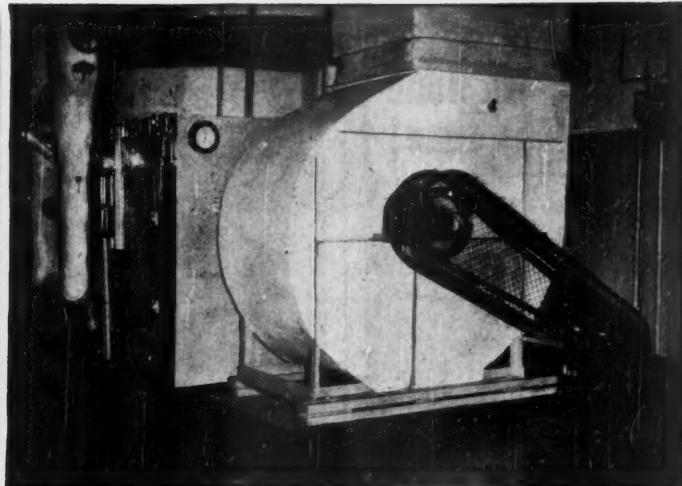
Three Ohio companies prove blind, deaf can work as well as the able-bodied. Workers more loyal, have better job morale.

The war gave the physically handicapped their first real chance at factory jobs. And the end of the war took it away.

Most of the handicapped workers had excellent records. But they lost out when able-bodied veterans returned to industry. Now, comparatively few of them are left in the plants.

• **Influence**—But the wartime experience did have some lasting effects. Today government and private agencies are working quietly to get industry to reopen its gates to the handicapped. There's still a lot of hesitance about hiring the handicapped, while normal job-applicants are available. But there is no longer any argument about handicapped workers being able to do their jobs well.

• **Ohio**—One of the things that has helped dispel doubt about the workers'



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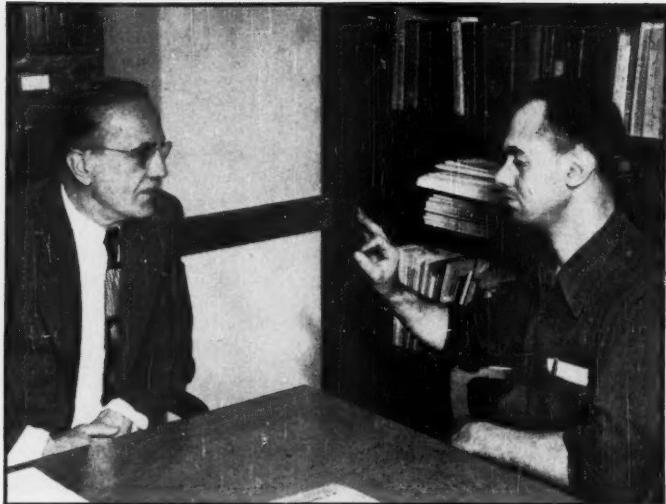
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2. Producers in spite of everything
3. Getting started first
4. Detours that mislead initiative
5. Reading that helps get things done right
6. How to get friends who help
7. How to plan to produce
8. How to say NO to yourself
9. Doing the things you must do
10. How to make yourself fit
11. How to decide trifles quickly
12. Getting a vigorous start
13. Getting more hours for getting more done
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THE DEAF have worked for Firestone for over 30 years. B. M. Schowes (left), labor specialist, deaf since he was 13, has done much to help other handicapped workers.

ability has been the record of three companies in Ohio, Goodyear Tire & Rubber Co., Firestone Tire & Rubber Co., and Timken Roller Bearing Co. have all had a great deal of success with handicapped crews.

Deaf workers have held jobs at Good-year and Firestone for more than 30 years. They have proved particularly effective on operations that require a lot of concentration (like typesetting and chemical-laboratory work). They also hold production jobs and work well on the big punch presses.

Blind workers went to work for the Timken Roller Bearing Co. during the war. About 40 wholly or partially blind employees are still on the payroll as inspectors. In their work they use: (1) electronic sound gages; (2) sound detectors; and (3) filing—and a keen sense of touch—to test steel for hardness and smoothness.

• **Goodyear**—Goodyear's interest in handicapped workers dates back to 1912. In that year, the late Park Myers went to a Goodyear job from the Ohio State School for Deaf. In the next five years, he was joined by several others who took rubber-plant jobs and started what is now known as Goodyear's "mutes colony." The colony grew to a population of several hundred during World War I. During these years, Goodyear set up special classes to train its handicapped recruits; it staffed the school with instructors who "spoke" sign language.

Goodyear found early in its program that the deaf concentrate better (presumably, because of silence); they learn machine operations faster than other workers. The company found, too,

that they generally work harder and become more enthusiastic employees. After 30 years, it still thinks so.

The depression in the 1930's reduced the ranks of the mutes colony. But it grew again to a high of nearly 1,000 persons during World War II. The colony is down to 100 now. All the workers are in the tire plant, and all have long service records.

• **Firestone**—The Firestone program for the handicapped also started about 30 years ago, when B. M. Schowes was hired to recruit deaf workers. Since 1934, Schowes has been labor-economics research specialist for the company. But he hasn't lost interest in the Firestone program for the deaf.

Schowes makes frequent "addresses" to school and rehabilitation groups of deaf people. The theme he emphasizes is that deafness doesn't disqualify anyone for a job in industry. The deaf can still handle most jobs, and handle them well.

• **Recommendations**—Schowes also does a lot of speaking to industrial groups about using the deaf in factories. Here are some of the main points he stresses:

• Jobs classified as common labor are seldom suitable for the deaf. Those without special trade skills are usually more successful as machine operators and bench hands—where manual dexterity counts most.

• Don't think that because a man is deaf he is immune to noise. Many deaf persons are hypersensitive to sounds. You have to use the same precautions with them as you do with other workers.

• Aptitudes of deaf workers are as varied as those of normal persons. If you assign all deaf to the same job you will



BOSS' TIP to Goodyear worker is in sign language; firm has long record with the deaf

waste a lot of native talent. Firestone's rule is to make job assignments on the basis of qualifications. But it makes sure the deaf come under foremen or supervisors who are accustomed to dealing with them.

• **Timken**—The problems that Good-year and Firestone face with the deaf are simple, though, when compared with Timken's problem. It fits blind persons into jobs.

The obvious way to place the blind, of course, is to give them work that makes use of their acute senses of hearing and touch. One Timken official came up with this idea: Equip precision gages to give different sound signals when a bearing is too small, too large, or just right.

Company engineers spent almost two years experimenting with gages before they worked out a satisfactory device. The one they came up with produces notes by a simple electronic oscillator that is controlled by relays connected to the regular precision gage. The device, Timken says, has raised the efficiency of blind inspectors to almost the same level as that of normal workers.

The gage will work on all types of measurement tests. Timken is offering plans for it, without royalties, to any firm that will use it to make jobs for the blind.

• **Safety**—The possibility of accidents has always been one of management's big objections to employing the handicapped. Timken guards its blind workers by assigning an escort to groups on plant property. Goodyear and Firestone keep their deaf workers off jobs where hearing is necessary to keep them out of danger. The need for taking precau-



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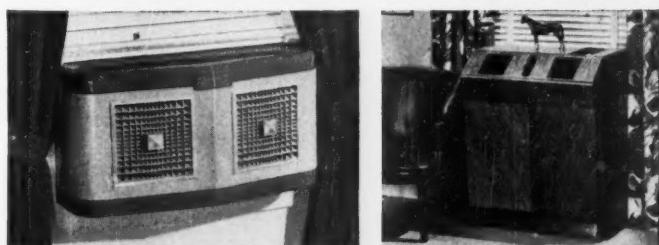
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tions is routine in the early discipline of the deaf. So they automatically check the position of overhead cranes and other moving equipment. According to plant safety officials, the deaf travel through plants even more safely than normal workers.

• **Advantages**—What are some of the gains from using the handicapped? Firestone, Goodyear, and Timken all agree that:

(1) Physically handicapped workers can be just as effective in many plant jobs as the able-bodied.

(2) They are less likely to switch jobs, or to be absent without good reason.

(3) While their production may be less in quantity and quality than that of the able-bodied, their enthusiasm and high morale more than make up for it in the long run.

LABOR BRIEFS

Job-bias ban failed to pass in Illinois Senate after squeezing through in House. Bill had the backing of Gov. Adlai Stevenson and labor unions.

Insurance agents for John Hancock Mutual Life Insurance Co. will get \$5-per-week pay hikes under a new two-year contract with C.I.O.'s Office & Professional Workers.

Dept. of Justice will probe non-Communist oaths of Max Perlow and two other officers of the United Furniture Workers (C.I.O.). NLRB's council sent Taft-Hartley oaths to the department, saying there is "considerable doubt" about the officers' "good faith" (BW-Jun. 11 '49, p99).

American Zinc workers at Fairmont City, Ill., last week voted 373-to-339 against ousting the left-wing Mine, Mill & Smelter Workers (C.I.O.) from the struck plant (BW-Jun. 11 '49, p100). Company president H. L. Young says the vote won't alter American Zinc's decision against dealing with leftist unions.

U. E. rightwingers, out to oust U. E.'s top leftist leaders (BW-May 1 '49, p115), are trailing in one crucial test-election of convention delegates in the important Pennsylvania District 6.

The Pictures—Ed Fales—60 (top); Art Hang—40, 43, 44; Bob Iscar—\$4; John Sisso—60 (bot.); Wide World—19; Dick Wolters—78 (top left).

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INTERNATIONAL OUTLOOK

BUSINESS WEEK

JUNE 25, 1949



What did the West get out of the Paris conference?

According to French Communists, the foreign ministers have about ended the cold war. If so, that would be good for both East and West.

But even on paper the results don't add up to much more than an easing of tension. All that Acheson, Bevin, and Schuman actually did was (1) shake the Soviet army's grip on Austria; (2) get more Russian promises on Berlin.

What worries some western diplomats is that the Communists may sell their line all over western Europe. That would take the steam out of the Atlantic Alliance, and might make U. S.-Soviet relations worse than ever.

European fears of a U. S. depression are already loosening faith in the West's unity. Europeans got a shock from the big drop in their exports to the U. S. during the first quarter of 1949.

More depression jitters would strengthen the trend toward self-sufficiency in Europe, weaken the U. S. case for freer trade.

The Communists, of course, will exploit this kind of thinking—as well as push their peace offensive.

Meanwhile, another dollar crisis is brewing in Britain. The widening gap between British dollar income and outgo has both London and Washington worried.

Here's the story: London's dollar deficit (for the sterling area) in the first quarter of 1949 was \$328-million, an amount that could be just covered by ECA aid. But it looks as if the second-quarter deficit will be at least \$500-million. This means that London's gold and dollar reserves are sure to drop below \$2-billion, a figure that's considered rock bottom.

The trouble is this: Britain's dollar payments have gone up while its dollar earnings have dropped.

The Bank of England is paying more gold to Belgium and Switzerland than it planned on. Second-quarter payments to these two countries probably will be above \$50-million, as against \$35-million in the first quarter. Dollar releases to Egypt and Iran have also shot up.

And it isn't just the fall in exports from the British Isles to the U. S. that accounts for the loss of dollar earnings. Due to the drop in commodity prices here, sterling area products like rubber and cocoa earn less.

What this means is more austerity in British imports. It's the kind of austerity that will hurt American exporters as well as British consumers.

Cuts will be made in British buying in the U. S. and other dollar areas. And London will press British colonies and dominions to do the same.

It's this angle that bothers Washington most. Congressmen know that the Marshall Plan was supposed to end that sort of thing; they may start talking about cutting ECA aid to Britain. This would only make matters worse, of course.

The gloomy economic outlook in Europe could lead to pressure on the U. S. to raise the dollar price of gold.

There's increasing talk along this line in European financial quarters.

It's not official talk yet. But it could be by September, when the governors of the International Monetary Fund meet in Washington.

What's more, British Chancellor Cripps might even decide to link the

INTERNATIONAL OUTLOOK (Continued)

BUSINESS WEEK

JUNE 25, 1949

gold price question with the whole devaluation issue (BW-Jun.18'49,p119).

You can be sure the British would like to avoid any talk of pound devaluation at the IMF meeting.

But if Treasury Secretary Snyder forces the issue, Cripps might say: I'll talk devaluation if you will bring a higher price for gold into the picture.

The idea might be this: The U. S. Treasury would agree to pay, say, \$50 an ounce for gold instead of the present \$35. That, of course, means devaluation of the dollar. So other currencies, including the pound, would be devalued even more in terms of gold.

Thus, the pound might end up worth \$3 or \$3.25.

The effects on British dollar earnings would be twofold:

(1) With a cheaper pound, more British goods should be sold in the U. S.

(2) The Empire would get more dollars for gold sold to the U. S.

These two things might make Cripps accept the risks of devaluation—higher import costs and a wage-price spiral (BW-Jun.4'49,p103).

London has an obvious interest in boosting the value of gold.

There are no gold mines in the British Isles, of course.

But if you exclude Russia, the sterling area has about 65% of the world's annual gold output. (South Africa is the world's biggest producer; Australia, West Africa, and Rhodesia add a lot to the sterling-area total.)

A price of \$50 an ounce would not only increase the value of reserves and current production, but would surely lead to a big increase in output.

Continental countries would probably back the British in urging the U. S. to make such a move.

A higher dollar price for gold would increase the value of their official reserves. In the case of France, it might pull as much as \$1-billion of the yellow metal out of private hoards.

The fact is the Marshall Plan countries figure they have lost a lot on a stable gold price. As they see it, if we had raised our gold-buying price along with other prices, this would have given them between \$500-million and \$1-billion a year more purchasing power in the U. S.

What this new gold scheme adds up to is first a shot in the arm and then a sort of perpetual Marshall Plan.

There are plenty of reasons why Secretary Snyder won't take to it. Here are some of them:

(1) Dollar devaluation would have an inflationary effect in the U. S. He now thinks it may be better to ride out a recession without such an artificial stimulus.

(2) The government would be paying its bondholders in dollars that would be worth less in terms of gold. That could make businessmen and investors even more uneasy than they are now.

(3) There's no point in shoveling more gold into Ft. Knox. There's far more there now than the U. S. needs to back its currency.

(4) Devaluation of the dollar might shake confidence in the one major currency the world now has confidence in.

BUSINESS ABROAD



NEW OIL WELL in Ethiopia is kind of thing the Administration seeks as it takes . . .

First Step for Show-How

The President's Point 4 program goes to Congress this week. It asks \$48-million for technical assistance for underdeveloped countries; Ex-Im Bank would underwrite new private investments.

This week President Truman's "bold new" Point 4 program finally simmered down to legislation for Congress. Somewhere in the five months of bickering over details, the program to develop the world's backward areas lost a lot of its bold look; the keynote of the package for Congress is cautious experimentation.

• **Two-Pronged**—The program has two basic aspects:

(1) To finance a government program of technical assistance to friendly, underdeveloped countries, Truman asks for a total of \$48-million in new funds. United Nations agencies would get one-third; the U.S. would spend the rest.

(2) To enlist private capital, Truman asks for "broad flexible authority" permitting the Export-Import Bank to underwrite new private investments abroad. This job would require no new funds. The bank will simply be empowered to write guarantees, probably running for a maximum of 15 to 20 years, against funds that aren't committed for loans. Uncommitted Ex-Im funds now total about \$950-million. But more than half of this money must be kept for Ex-Im's regular operations. This means that only \$300-million to \$400-million is likely to be set aside for guarantees.

Businessmen, of course, are primarily concerned with the second phase of the program. And it's this phase that has kept State, Treasury, Commerce, and bank officials wrangling for weeks. State wanted broad guarantees, Treasury a limited program, Commerce a compromise.

• **Ex-Im's Job**—The legislation simply turns the job over to Export-Import with a minimum of strings (BW-Apr. 30 '49, p15). The idea is that each guarantee will be the product of individual negotiations, tailored to meet the specific circumstances of a particular type of project or of the country involved.

• **Liberal, Flexible**—Administration of the guarantees will probably be cautiously liberal. It is understood, for example, that Export-Import will be willing to go beyond insuring exchange convertibility. Protection against expropriation, confiscation, seizure, and maybe war risks all will be negotiable, as the government determines the need.

Flexibility is vital to the program. For example, U.S. mining companies that operate abroad aren't likely to worry about the exchange guarantee. They probably sell their output in the U.S. market, thus earn dollar exchange themselves. But they may be interested

in a guarantee against expropriation.

Officials at Export-Import itself see themselves being a bit more courageous in writing guarantees than they have been in making loans.

• **Self-Sustaining**—Bank officials plan to put their guarantee business on a self-sustaining basis. Premiums, which will vary according to the type of risk insured, will be high enough to make this possible. (There has been some talk of varying rates according to geographical areas; that is, have the rate higher in Southeast Asia, say, than in Latin America.)

Also, the government plans to protect itself from too many sour guarantees by signing, beforehand, "investment treaties" with the governments of nations where the Point 4 program gets going (BW-May 14 '49, p16).

• **Controversial**—Businessmen will probably be pleased to have the investment guarantees handled by the Export-Import Bank. One point that's sure to raise controversy is the handling of existing investments. Established investors have been worrying lest foreign governments give unguaranteed investments a low priority in allocating dollar exchange, favor new investors who come under the wing of the Ex-Im-Bank.

• **Technical Assistance**—Under present plans, the technical-assistance program will be in the hands of the State Dept. State will also have the right to suggest priorities for specific private-investment projects which it wants to tie in with this report of "show-how." In practice, this should prove an important factor in influencing both the volume and the liberality of guarantees.

Key officials still aren't too optimistic about the impact the program really will have on the world, under this setup. They won't predict, but if Export-Import writes \$200-million in guarantees the first year they will be happy.

• **Breakdown**—Here's how the \$48-million in new "show-how" funds is to be spent: \$18.5-million as a U.S. contribution to UN agencies; \$26-million for strictly U.S. operations in backward areas; the rest for administration of the program.

Geographically, you get this breakdown of technical-assistance spending (if you count in other UN funds, including money from some of the recipient areas themselves): Latin America, \$33.6-million; Asia and Far East, \$30-million; Near East and Africa, \$26.5-million; Europe and dependencies, \$12.4-million.

• **Prospects**—Will Congress act at all this year? On this point officials of all agencies that wrangled out the program are optimistic. They point out that the new money is a minimum figure, that the guarantees will all be written from funds already authorized—big talking points with Congress these days.



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NEW I.C.C. HEAD, America's Philip D. Reed (left), and his predecessor, Britain's newly knighted Sir Arthur Guinness, make more headway than their compatriots in . . .

Trying to Agree on World Trade

Naming the roadblocks that bar the free flow of goods proved no task for the International Chamber of Commerce at Quebec. Deciding what to do about them was another matter.

QUEBEC—There is no simple way to increase world trade. But if a way isn't found soon, free enterprise faces a slow death for lack of new markets.

These broad conclusions came out of the 12th biennial congress of the International Chamber of Commerce, held all last week in Quebec's Chateau Frontenac. They came from some 500 of the best business and banking brains in 27 western countries.

• **Businessmen vs. Bankers**—The best brains produced plenty of differences of opinions. Perhaps the clearest cut came between businessmen and bankers. As cures for the world's trade ills, the bankers stressed currency convertibility, devaluation, and gold manipulation. Said one U.S. banker, "Businessmen aren't competent to handle such problems."

To the businessmen the bankers were full of panaceas but lacking in practical suggestions. The businessmen were more interested in clearing away the physical barriers to trade—awkward customs procedures, tariffs, bars to foreign investment, protected shipping industries, inadequate marketing and advertising techniques.

• **Nation vs. Nation**—There was, of course, a clash of national views, too. British caution ran up against U.S. urgency. The British weren't ready to take the risks necessary for freer world trade. The U.S. demanded action be-

fore it is too late. In between the two were the continentals, with the Belgians and Swiss almost more urgent than the U.S., and the Swedes, Danish, and Dutch more moderate.

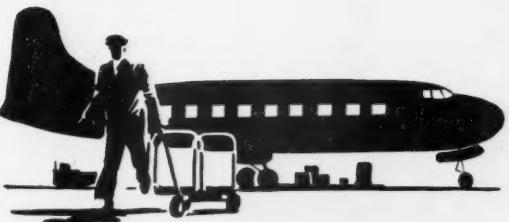
The congress was conducted in a European manner. Protocol, which many U.S. businessmen have not yet learned to live with, was important. A spade was rarely called a spade.

• **Faux-Pas**—The European atmosphere annoyed some Americans, embarrassed others. When Henry J. Heinz II chairman of the U.S. Council to I.C.C., delivered a blast at the International Trade Organization charter in his speech keynoting the congress, many U.S. delegates cringed. I.T.O. was not on the congress' agenda, and the U.S. delegates certainly had reached no agreement on where they stood. (Heinz later assured everybody he was speaking only for himself.)

Such faux-pas, plus some intra-mural squabbling among the Americans over what right the I.C.C. had to speak for U.S. business, didn't help the U.S. cause much.

• **Some Assurance**—U.S. newness to the foreign trade field worried many Europeans at Quebec. For so great is America's productive power that even though only 10% goes to foreign trade, the U.S. is still the world's biggest trading nation.

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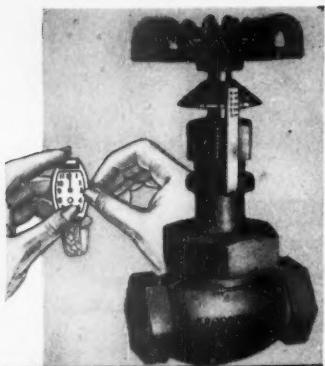


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heavily on U.S. trade. It was natural that one European delegate at Quebec should say anxiously, "You're the big fellow in this business, but we never know what you will do next."

However, European businessmen could take some assurance from the conference that U.S. interest in foreign trade will not wane. General Electric's suave and able chairman, Philip D. Reed, will be at the helm of I.C.C. for the next two years. And Reed is one of America's top business diplomats.

• **Convertibility**—The differences in opinion that flourished at Quebec only emphasized how complex the business of expanding world trade can get.

When the bankers argued that currencies must be made convertible, the British shot back that first conditions must be right. The British harked back many times to the "black" six weeks in 1947 when sterling was convertible into dollars. That was the U.S. string attached to its \$3.75-billion British loan. It almost broke the British then, and they claim their gold reserves couldn't stand another try just yet.

• **Devaluation**—When some of the bankers argued that some devaluation would be necessary, Chase Bank's hard-headed vice-president Thomas McKittrick said, "Devaluation is like buttons on a suit. You need buttons on your suit, but not until you have the cloth first." Devaluation, like convertibility, also depends on conditions.

The British were particularly touchy on the devaluation issue. The retiring I.C.C. president, Sir Arthur Guinness, pointed out that 25% of Britain's imports come from the U.S. and Canada. Devaluation would automatically up the price of these.

A French businessman could speak on devaluation from practical experience. Said he, "My costs have gone up almost 35% since the franc was devalued 25% last year."

• **Foreign Investments**—While the bankers were arguing—at times academically—on international monetary questions, businessmen were attacking trade barriers on a different level. Most delegates thought the biggest contribution made by the I.C.C. congress in expanding trade was its International Code of Fair Treatment for Foreign Investments. The code, released several months ago, will go to each national government represented and to the United Nations Economic & Social Council. I.C.C. hopes it will form the basis of bilateral agreements between nations for the protection of foreign investors.

But nobody thought that foreign investments would fill the trade gaps that seem inevitable after ECA closes up in 1953. Maurice Parsons, director of operations at the International Monetary

Fund put it this way: "For several generations London provided the chief source of foreign investments for the world as a whole. . . . Now it becomes essential to find a successor—and to find one under conditions which are admittedly less favorable to the private investor than they were in London's heyday. . . ."

• **U. S. Tariffs**—Parsons thought that creditor nations (i.e. the U.S.) would have to let down their bars to imports in order to close the trade gap far enough so that foreign investments could fill it. And Parsons had a lot of support among the European delegates. (Said a U.S. delegate, "We'll have a hell of a time selling that sort of stuff back home now that business is dropping.")

• Many Europeans were worried about high U.S. tariffs on manufactured goods, which are the big items in Europe's overseas exports. But many delegates felt that before a frontal attack should be made on these, someone should take a fine tooth comb to the U.S. customs procedures. Many thought our customs system kept out even more imports than our tariffs. For instance, one European trader asked, why does the U.S. slap a processing tax on imported raw materials that it needs so much?

• **U. S. Shipowners**—Other I.C.C. committees have been working on other pieces of the puzzle of how to expand the world's trade. The organization's shipping committee passed a resolution at Quebec which looked mighty like a slap at U.S. shipowners. In part the resolution read, "[The I.C.C.] urges governments to secure prompt removal of all acts of discrimination based on the flag of a vessel."

Committee chairman Lief Hoegh of the Assn. of Norwegian Shipowners, hastened to say that the committee wasn't referring to FCA's 50-50 shipping clause (BW-Jun.4'49,p110). None of the committee wanted to be caught looking the gift horse in the mouth. A British committee member was even more elusive. He claimed that the resolution wasn't aimed at the American shippers at all; just at nations who might be tempted to copy the Americans.

• **Right at Hand**—However, a still more dramatic illustration of the difficulties facing world trade turned up at Quebec.

Recently the I.C.C. finished work on a document called "Invisible Barriers to Trade and Travel," the latest of many such studies on customs policy that the I.C.C. has produced since its organization in 1919. Copies of the new effort went on view just before the congress started—but only after they had been held up two weeks by Canadian customs. The Canadian customs are particularly punctilious on books and printed matter.

ECA'S LEDGER

Steel Export Outlook

Judging from ECA's iron and steel commodity study, U.S. producers will have trouble selling in world markets after ECA closes shop.

If Marshall Plan Europe manages to carry through its present steel expansion plans, its 1952-53 production of crude steel will top 57-million tons. That's 13-million tons more than pre-war. At the same time, finished steel production is supposed to reach 44-million tons.

With that output, western Europe should be able to export about 10-million tons of finished steel. That is just about equal to the expected world market for steel exports after ECA closes shop. So if the Europeans can come anywhere near meeting U.S. quality standards, they can offer real competition to American producers.

• Brighter Side—There is a silver lining, though. U.S. iron and steel equipment producers should get \$400-million worth of orders to supply western Europe's \$3.1-billion steel expansion program. This fiscal year, \$75-million in ECA funds are being spent in the U.S. for iron and steel equipment; fiscal 1949-50 should bring in another \$110-million.

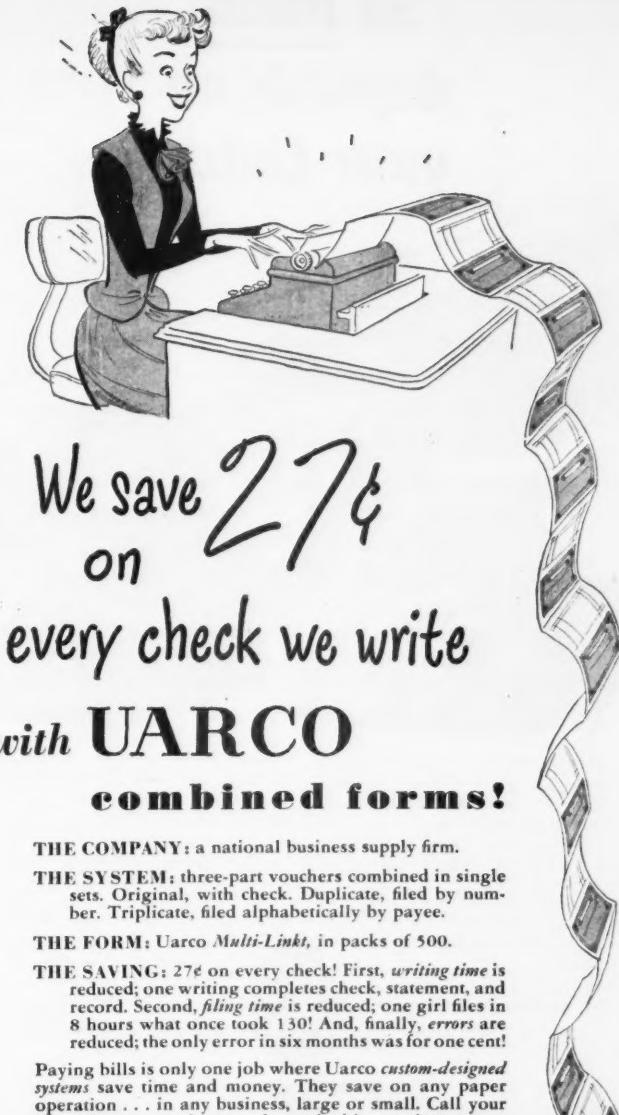
Other Developments

Timber. Marshall Plan buying is accounting for better than half of the U.S. timber-export trade. Exports are averaging about 650-million bd. ft. a year now; that's about half a normal pre-war year. According to ECA's commodity study on western Europe's timber buying plans, U.S. timber exports will shrink to about a quarter of pre-war after ECA closes shop.

Italy. ECA will finance \$1.7-million worth of U.S. machinery for the Cartiere Burge paper mills at Verzuolo and Cosico, Italy. Needed are electric motors, pipe valves, laboratory instruments, vats, and lift trucks. With the Italians throwing in 1-billion lire, Cartiere Burge will up its daily production from 210 metric tons to 295 metric tons.

Refund. ECA says that in order to get Marshall Plan dollars, buyers must pay prices on the basis of net weights, not gross weights, where applicable. Failure to pay on net last week cost the Allied Military Government's Joint Export-Import Agency about \$370,000.

Know-how to Africa. Three U.S. agricultural experts will sail for Africa next month to give the British some advice on how to get more food out of their African colonies.



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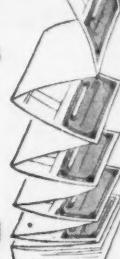
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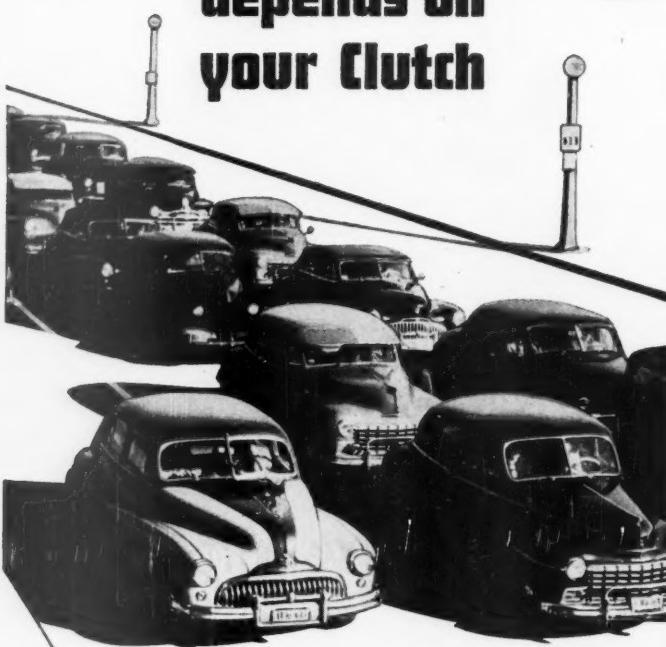
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Peso Pegged

Bank of Mexico sets exchange rate at 8.65 to the dollar. Firm prices should mean more exports, bigger tourist influx.

MEXICO CITY—The wayward peso has finally been brought to rest at a rate of 8.65 to the dollar.

The news of its pegging by the Bank of Mexico last week got immediate approval from U. S. and Mexican businessmen. True, the low value will discourage imports from the U. S. for a while. But the Mexicans are confident they can adjust their businesses to higher import prices.

- **Stability**—The important thing is that a fixed rate has finally been set. Ever since the peso was cut loose from the official 4.85 rate last July, traders have never known where they stood. Many orders placed at one price had to be accepted on delivery at an entirely different price—thanks to the sharp fluctuations of the peso exchange rate. More than one U. S. shipment to Mexico got turned back at the border because of the unexpectedly high cost of buying dollars.

To the Mexicans, of course, the devaluation should mean a greater export volume. Mexican minerals, cotton, henquilla, pineapples, and bananas will carry lower price tags in the world market. The new exchange rates should mean more tourists, too. The government has frozen hotel rates which, in effect, cuts the tourist's expense by 30%.

- **Good Chance of Sticking**—Most observers feel the Mexicans can make the new rate stick for at least the foreseeable future. Mexico has \$80-million in its stabilization fund plus another \$50-million in gold and hard currencies. The U. S. has agreed to make \$25-million available from its own stabilization fund as extra insurance.

Optimism over the new exchange rate is, in a way, a tribute to the success of Finance Minister Beteta's fiscal policies. Mexico has been able to do what no other Latin American country, except Venezuela, has done—peg its money without the aid of exchange controls. Buying and selling of foreign exchange will continue with complete freedom in Mexico. The Mexican government will maintain the peg by operating in the peso market.

- **Three-Party Talks**—The new rate came out of talks among the International Monetary Fund and the U. S. and Mexican governments. It is actually about 50 centavos higher than the free rate quoted in Mexico City at the time of the announcement.

India's Jute Mills Ride for a Slump

CALCUTTA—Rising costs and falling markets are taking their toll of India's jute mills. Starting July 1, the jute-processing industry has decided to close its mills one week out of every four. Last month the industry took 12½% of its loomage out of production.

- **Causes**—Rising labor costs are a big factor in the slump. So is the partition of India and Pakistan. Partition left three-fourths of Old India's raw-jute acreage in Pakistan. So while India remains the world's largest exporter of jute manufactures, it is also the world's largest importer of raw jute.

But perhaps the most important reason for the slump is that India's market for jute products is drying up. Cotton and paper sacking is becoming more popular now than higher costs are removing jute's age-old price advantage.

- **Raw Jute Up**—The price of raw jute at Calcutta has soared to more than 450% of its prewar level.

- **Blow—Worst of all**, India earns 35% of its total foreign exchange from jute, 60% of its total dollar exchange.

BUSINESS ABROAD BRIEFS

Three auto makers—Chrysler, General Motors, and Austin—are considering setting up assembly plants in Karachi, Pakistan. Chrysler and Austin may entrust assembly operations to two Pakistan firms, as Ford has already done. G. M. may operate its plant itself.

India's seventh large-scale assembly plant for autos will be operating next year if plans of Britain's Standard Motors go through.

Britain is making headway in the Brazilian machinery market. Sales for the first quarter, 1949, totaled \$50-million—twice the comparable 1948 figure.

Brazilian state of Minas Gerais signed a \$4.5-million contract with International General Electric to supply equipment for a hydro-electric power plant at Salto Grande, in the northeastern part of the state.

Pittsburgh Plate Glass' newly acquired Canadian subsidiary, Canadian Industrial Glass Co., Ltd., St. Laurent, Quebec, will resume operations within three months. The U.S. firm bought the plant from Industrial Glass Co., Ltd., for \$1.5-million worth of Pittsburgh Plate stock. The plant, which turns out window glass, was recently closed for repairs.

ADVERTISERS IN THIS ISSUE

Business Week—June 25, 1949

ALAN WOOD STEEL CO.	40	McGRAW-HILL BOOK CO., INC.	102
Avery—John Fallauer Arndt & Co., Inc.		McGRAW-HILL PUBLISHING CO., INC.	58-59
ALLIED STRUCTURAL STEEL COMPANIES	46	THE MEAD CORP.	76
Avery—The Fensolt Co.		Avery—Great Northern Paper Co.	
AMERICAN BRAKE SHOE CO.	12	MERCURY MANUFACTURING CO.	62
Avery—Fuller & Smith & Ross, Inc.		Avery—Of Grady-Anderson	
AMERICAN GIRL	98	MICRO SWITCH DIV. OF	
Avery—Abbott Kimball Co., Inc.		FIRST IND'L CORP.	41
AMERICAN LEADERS	65	Avery—Hamilton Adv. Agency, Inc.	
Avery—Preston & Coddington		THE MINING & METALLURGICAL	
AMERICAN OPTICAL CO.	89	ST. LOUIS RAILWAY.	87
Avery—Sutherland-Albert		Avery—Addison Lewis & Assoc.	
AMERICAN TELEPHONE & TELEGRAPH CO.	5	MITCHELL-RAND INSULATION CO.	90
Avery—American Mason, Inc.		Avery—Sam J. Galay, Adv.	
AVERY ADHESIVE LABEL CORP.	110	MOBILIFIT CORP.	4
Avery—John H. Blandon Co.		Avery—House & Leland, Adv.	
THE BAKER RULANG CO.	43	NEKOOSIER-LEEDS PAPER CO.	93
Avery—O. M. Basford Co.		Avery—The Crandall-King Co.	
BANKERS TRUST CO.	1	N. Y. STATE DEPT. OF COMMERCE.	98
Avery—Cowen & Dengler, Inc.		Avery—Batten, Barton, Durstine & Osborn, Inc.	
THE BILTMORE HOTEL	92	NORFOLK & WESTERN RAILWAY CO.	71
Avery—The Biltmore Hotel, Adv. Agency, Inc.		Avery—Houck & Co., Adv.	
BLAW-KNOX CO.	33	NORTHERN PACIFIC RAILWAY CO.	77
Avery—Al Paul Letton Co., Inc.		Avery—Batten, Barton, Durstine & Osborn, Inc.	
BORG-WARNER CORP.	114	NOVA RUSTICHE CHEMICAL CO.	45
Avery—Rogers & Smith		Avery—Harold Silver, Co.	
BOWER ROLLER BEARING CO.	2nd Cover	ODONITE CHEMICAL CO.	11
Avery—MacManus, John & Adams, Inc.		Avery—I. C. Cole, Adv.	
BUFFALO FORGE CO.	101	OTIS ELEVATOR CO.	73
Avery—Kaufman Hall Adv. Agency, Inc.		Avery—G. M. Basford Co.	
BUSINESS WEEK	88	PACKAGE MACHINERY CO.	32
Avery—Ellington & Co., Inc.		Avery—John O. Powers Co.	
CENTURY ELECTRIC CO.	55	THE PENNSYLVANIA RAILWAY CO.	14
Avery—Oakleigh R. French & Assoc.		Avery—N. W. Ayer & Son, Inc.	
CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC R.R. CO.	28	PENNSYLVANIA SALT MFG. CO.	34
Avery—Williamson & Cleary, Inc.		Avery—George Marston, Inc.	
CHICAGO WATCHCO. LTD.	70	PERMITTUT CO.	30
Avery—Kendell, Breslitch & Co.		Avery—Newell-Emmett Co.	
CLUES	94	PHILCO CORP.	103
COLD METAL PRODUCTS CO.	72	Avery—Buchanan Adv. Co., Inc.	
Avery—H. M. Klingensmith Co.		PINEY-SIMPSON CO.	67
CONNECTICUT GEN'L LIFE INS CO.	85	Avery—L. E. McGivern & Co., Inc.	
Avery—Edward W. Robotham Co.		PULVERIZING MACHINERY CO.	110
CROFT & CHERS	64	Avery—Merreyday, Handy & Van Denburgh	
Avery—Blaker Adv. Agency, Inc.		RAPIDS-STANDARD CO., INC.	38
A. B. DICK CO.	39	Avery—Wesley Aves & Assoc.	
Avery—Fuller & Smith & Ross, Inc.		RECORDAK CORP.	
DROP FORGING ASSOCIATION	68	(SUB OF KODAKMAN KODAK).	105
Avery—The Leedonelle Co.		Avery—J. Walter Thompson Co.	
E. I. du PONT de NEMOURS & CO., INC.	7	REMINGTON RAND, INC.	91
Avery—Batten, Barton, Durstine & Osborn, Inc.		Avery—Leedon Adv. Agy., Inc.	
DUNANT MANUFACTURING CO.	96	REVERE COPPER & BRASS, INC.	56
Avery—Kaufman Hall Adv. Agency		Avery—St. Georges & Keyes, Inc.	
DUREZ PLASTICS & CHEMICALS, INC.	83	JOH. T. RYERSON & SON, INC.	27
Avery—Comstock, Duffee & Co.		Avery—John T. Ryerson & Sons, Inc.	
A. B. FARQUHAR CO.	95	SIGNAL ELECTRIC MFG. CO.	94
Avery—Van Dusen & Co., Inc.		Avery—Richard H. Brady Co., Inc.	
FRIGIDAIRE DIV., GEN'L MOTORS CORP.	80	SOCOY-VACUUM OIL CO., INC.	3rd Cover
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GENERAL BOX CO.	74	F. STOTES MACHINERY CO., INC.	66
Avery—The Buchen Co.		Avery—John M. Lupton Co., Inc.	
GENERAL ELECTRIC CO., AIR CONDITIONING DEPT.	82	STOLPER STEEL PRODUCTS CORP.	84
Avery—Kaufman Hall Adv. Agency, Inc.		Avery—Kian-Van Petersen-Dunlap Assoc.	
GENERAL ELECTRIC CO., CHEMICAL DEPT.	18	TIMKEN ROLLER BEARING CO.	4th Cover
Avery—Benton & Bowles, Inc.		Avery—Batten, Barton, Durstine & Osborn, Inc.	
GENERAL FIREPROOFING CO.	104	UARCO, INC.	113
Avery—The Griswold-Eshleman Co.		Avery—The Buchen Co.	
GLOBE AUTOMATIC SPRINKLER CO., INC.	89	UNITED AIRCRAFT CORP.	111
Avery—M. M. Morris & Co., Inc.		Avery—Alfred C. Goss, Inc.	
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Avery—Batten, Barton, Durstine & Osborn, Inc.		Avery—The Alfred Colle Co.	
HANSEN MFG. CO.	84	U. S. GUTTA PERCHA PAINT CO.	42
Avery—Hathaway Adv. Agency		Avery—Sutherland-Albert	
HARDWARE MUTUALS	61	U. S. STEEL CORP.	2
Avery—Rothe Williams & Cleary, Inc.		Avery—Batten, Barton, Durstine & Osborn, Inc.	
THE HIME & DAUCH PAPER CO.	79	U. S. STEEL SUPPLY CO.	37
Avery—Harrington Adv. Agency		Avery—Batten, Barton, Durstine & Osborn, Inc.	
HOWELL ELECTRIC MOTORS CO.	3	WAGNER ELECTRIC CORP.	69
Avery—Brooke, Smith, French, Durrance, Inc.		Avery—Arthur R. Mogge, Inc.	
THE INTERNATIONAL NICKEL CO., INC.	17	WASSELL ORGANIZATION	100
Avery—Marschall & Pratt Co.		Avery—Neumann & Grohmann, Inc.	
KELLER TOOL COMPANY	82	JERVIS & WEBB CO.	36
Avery—The Marshall Co.		Avery—White-Burdick, Adv.	
KWIK-MIX CO.	20	WEBSTER ELECTRIC CO.	35
Avery—Andrews Agency		WESTERN UNION TELEGRAPH CO.	63
THE LORD BALTIMORE HOTEL	100	WESTINGHOUSE ELECTRIC CORP.	
Avery—The Emery Adv. Co., Inc.		(ISLAND) CAMPAGNA	106
P. R. MALLORY & CO., INC.	75	Avery—Fuller & Smith & Ross, Inc.	
Avery—The Alkin-Kynett Co.		WESTINGHOUSE ELECTRIC CORP.	8
MANNING, MAXWELL & MOORE, INC.	112	Avery—Fuller & Smith & Ross, Inc.	
Avery—Brown & Vandyke, Inc.		WHITE MOTOR CO.	29
MARSHALL CALCULATING MACHINE CO.	87	Avery—D'Arcy Adv. Co.	
Avery—Barrett, Adv. Co.		L. J. WING MFG. CO.	86
THE MARINE MIDLAND TRUST CO. OF N.Y.	31	Avery—Willard G. Meyers, Adv. Agency	
Avery—Batten, Barton, Durstine & Osborn, Inc.		THE YODER CO.	44
MATERIALS & METHODS MAGAZINE	68	Avery—G. M. Basford Co.	
Avery—Wilhelm Laundlin Wilson and Assoc.		YOUNGSTOWN SHEET & TUBE CO.	81

Two Ways to Get Higher Production

The first team sponsored by the Anglo-American Council on Productivity (an ECA enterprise) came over from England recently to visit 20 steel foundries in the U.S. The steel-founders' trip was called an unqualified success from a technical point of view.

The real value naturally can't be assessed until the information picked up has been put to use. But a lot was learned about plant layout and flow of work, handling of materials, servicing of skilled workmen, and improved production methods. One visiting foreman said production could be increased in his section 10% solely through application of methods observed here.

More Productivity for England

What if the whole level of productivity in British foundries and factories could be stepped up that much purely on the basis of what is learned from us? It would certainly be one of the biggest dividends paid by the Marshall Plan.

Britain's chances of getting on an even economic keel will be much brighter if it can get higher production. Higher production can easily be translated into higher sales at lower, competitive prices. In fact, the prospect of greater productivity carries with it not only the promise of better business health but also a better standard of personal living.

The British workers have been told that before. Sir Stafford Cripps so advised delegates to the British Trades Union Conference some time ago. He said they could expect no wage increases unless productivity is increased. He pointed out that big chunks of higher wages can't be continually carved out of profits. A cut in profits of 25%, he said, would provide only a 2% increase in wages. If all profits were wiped out, there could only be an 8% increase in wages. Obviously such an extreme step would be disastrous.

It is everyday information that there must be some profits left in any privately owned business, and that it can't all be paid out in the form of wages. There must be money available to pay for the tools of production—even in the case of a nationalized industry. It is also common knowledge that high productivity doesn't come from the workers' brawn and brain alone. The greatest auxiliary aid is mechanization. Workers must be aided by better machinery in Britain to keep that nation's factories on a competitive basis with foreign producers.

The foreman who believes his section could turn out 10% more from what he learned said that this could be accomplished without addition of any equipment. Of course, improved mechanization would permit him to raise his sights even higher.

More Productivity in U.S.

Greater productivity is achieved in this country than elsewhere because so much attention has been given to

improving the tools of production. Hours of work have been lowered; still, we are getting more output per worker. Why is this?

American industry has been able to maintain and increase its strength by spending billions of dollars for new capital equipment. A large part of this capital spending is to replace old, worn-out equipment with newer, better machines—only a fraction now goes for plant and equipment expansion.

But the modernization of American industry is far from complete. The workers in mills, mines, and factories need more new tools. And industry plans to spend billions of dollars more to do that modernizing job.

There's a catch, though. It is the availability of funds to pay for these huge capital investments: In 1948, corporations spent almost two-thirds of their profits for new plant and equipment. Corporate profits had to provide the bulk of the money for capital improvements because outside capital could not be attracted easily, and depreciation funds were not large enough to finance these programs. Present tax laws do not permit complete charge-offs of capital spending except over a long period of time. Most machinery has to be depreciated for tax purposes in a 15-year or 20-year period—the estimated useful life.

In England, much more rapid depreciation is permitted for tax purposes. Since 1932, depreciation up to 125% of normal wear and tear in any one year can be taken for tax purposes. The Income Tax Act of 1945 contained a further provision: In the case of new facilities an additional depreciation allowance of 20% over normal wear and tear can be taken in the first year. This year, the law was changed to boost this additional allowance in the first year from 20% to 40%. The net effect is to allow a British company to charge off right away about 50% of the total cost of new facilities having an estimated life of 10 years.

Contrast this with the experience of an American manufacturer who may run a machine on three shifts and actually wear it out before it can be fully depreciated. He may have to replace the machine at a time when his depreciation reserve for that particular unit is only equal to 50% of original cost, and today's inflated costs will make the replacement cost even more.

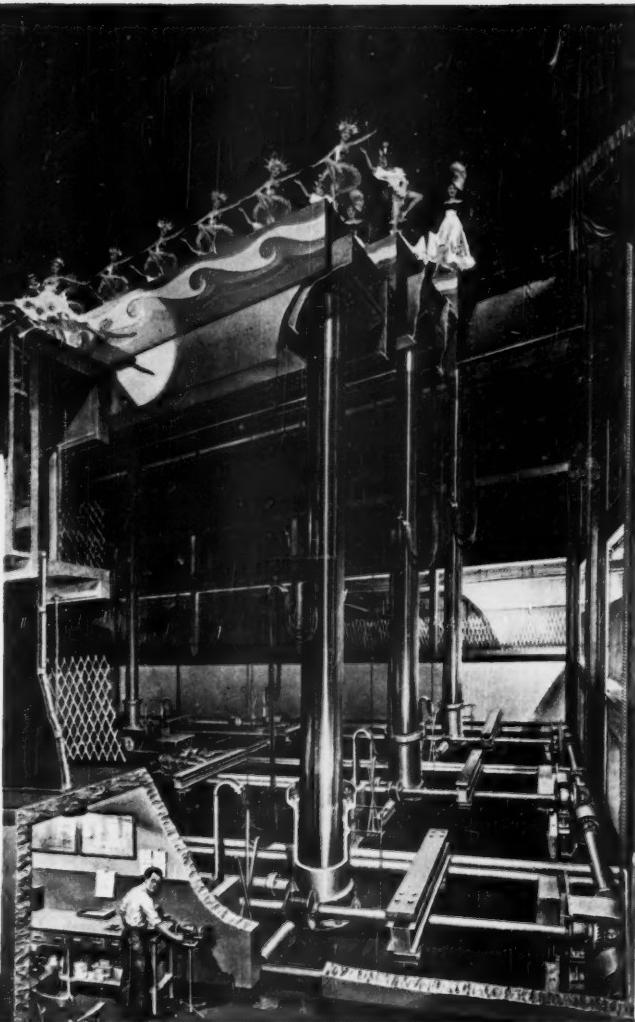
What We Can Learn

The whole spirit of the British steel founders' trip and others to follow was described as a mutual exchange of information.

If the British benefit from the visits of their productivity teams to this country, the effort will be well worthwhile. At the same time, the U.S. can cash in on this friendly intercourse with the British, if we adopt their method of making tax laws another device to increase productivity of American industry.

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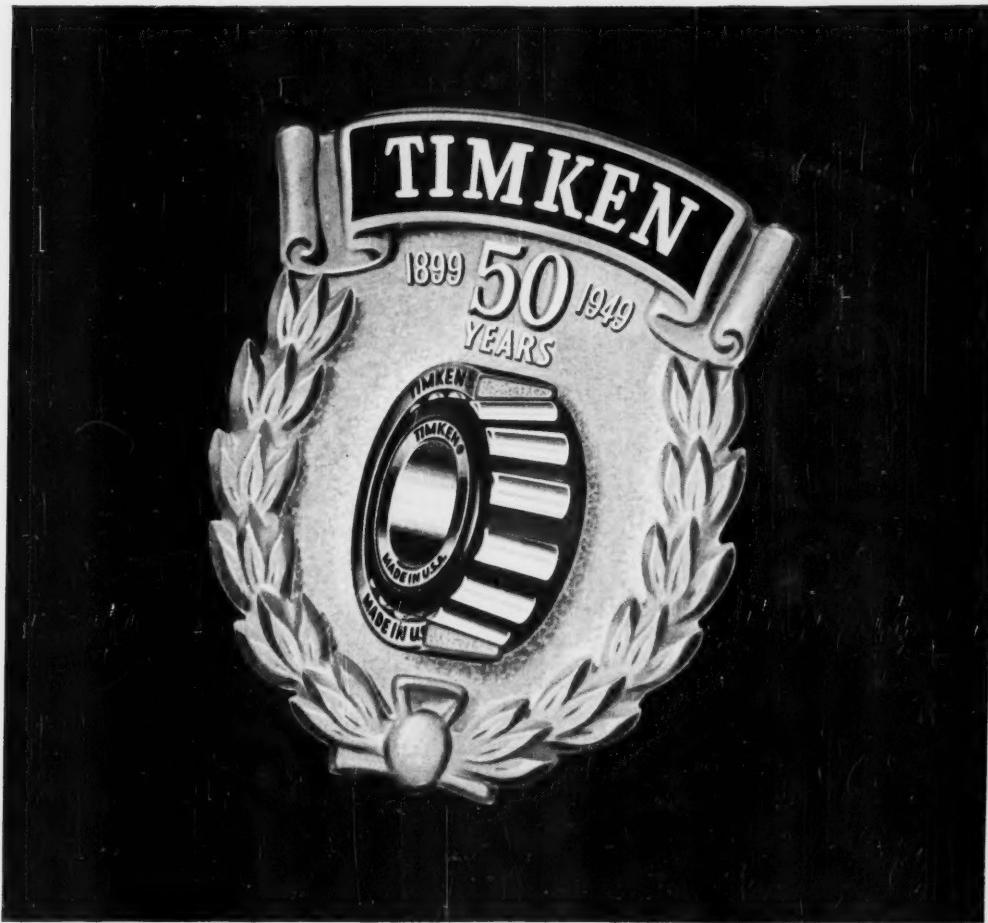
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